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THE NOVA SCOTIAN

JOURNAL OF AGRICULTURE

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

JOURNAL OF AGRICULTURE,

PUBLISHED UNDER DIRECTION OF THE BOARD OF AGRICULTURE OF NOVA SCOTIA.

A. H. MacKay

VOL. I. HALIFAX, N. S., MARCH 1865. No. 1.

CONTENTS:

In presenting the first number of the JOURNAL OF AGRICULTURE to the Farmers of Nova Scotia, much preface is not required. The publication is issued in terms of a provision of the Act of last session, which empowers the Board of Agriculture "to publish a quarterly or semi-annual journal for the diffusion of Agricultural and Horticultural information adapted to the condition and circumstances of the country." These plain and explicit terms indicate sufficiently the nature and general aim of the publication.

One of its principal objects shall be, to make known, from time to time, the operations of the Agricultural Board, and the steps that may be taken to promote agricultural improvement. Farmers in the most distant parts of the Province, ought to be equally well informed on such matters with those more favorably located, so that they may participate in the encouragements offered. The proceedings of the various Societies that have been, or may be, organized under the Agricultural Act, will likewise form a prominent feature of the publication. But while it will thus contain a considerable amount of official matter and intelligence, it is intended that its columns shall be *chiefly* devoted to the publication of useful information on the science and practice of farming.

In order to supply this kind of information, recourse might be had to various sources. Valuable assistance might be obtained from the researches of scientific men, and the experience of agriculturists in other countries, in the British Islands, in our neighboring Provinces of New Brunswick, Canada and Prince Edward Island, as well as in the Northern States; and we shall not fail to draw, to some extent, upon such fertile sources as these. But it is necessary that the information offered should be thoroughly adapted to the climate, circumstances, and present requirements of Nova Scotia. Whilst therefore we may profit largely by looking over the fences of our Canadian and American neighbors, yet the kind of information likely to prove most useful to the Nova Scotian farmers is to be sought in the Province and chiefly among the farmers themselves. It is to be hoped, therefore, that they will not be backward in aiding our efforts; but will cheerfully contribute to the general fund of knowledge.

We require to know the practical results of experiments in the country, before we can safely recommend new processes of culture or new modes of feeding, however successful they may have proved in other lands. Now, every farmer is to a certain extent an experimental farmer, unless indeed his eyes are closed to the most obvious teaching. Every year, every month, even every day, brings about some result upon a farm in connection with crop or stock, that affords him a useful lesson, worth being made known among his brother farmers. When bone-dust, or superphosphate, or sea-weed, or plaster, or swamp muck, or ashes, or lime, or compost, are applied to a soil, and produce an appreciable effect, other farmers ought to be made acquainted with the result, in order that they too may benefit by the practice, if a profitable one, or avoid repeating the experiment if unprofitable. In the same way let the experience of farmers in the feeding and management of the various breeds of neat cattle, sheep, pigs and poultry be made known. Let us hear what varieties of grain, turnips, mangels and potatoes succeed best in certain soils and in certain districts, and are least liable to insect-enemies and disease. Let us know what labor-saving implements,

and machines are best suited to smooth *intervale farms, and what are to be* preferred for rough up-lands; let us know what are the most profitable varieties of apples for orchard culture, and why the general culture of apples is so strictly limited to a few counties; why the hum of the honey bee is so seldom heard; what varieties of culinary vegetables are adapted to the farmer's garden; and what creepers and flowers are best suited to throw an air of beauty around his dwelling.

These are a few of the topics that invite attention in the columns of the *Journal of Agriculture*. To the farmers of this Province we appeal for that practical information which they alone can give, in order that the various matters introduced may be discussed in a thoroughly practical and profitable manner. Let it not be said that the farmers of Nova Scotia lack the ambition necessary to give spirited support to a Journal specially charged with the interests of their profession.

ABSTRACT OF ANNUAL REPORTS OF COUNTY AND DISTRICT SOCIETIES ORGANIZED UNDER THE BOARD OF AGRICULTURE.

It is provided by the Act for the Encouragement of Agriculture, that the officers and directors of each county or district society, organized under authority of the Board, shall present at the annual meeting in December, a Report of the proceedings of the society during the year, in which shall be stated the names of all the members of the society, the amount paid by each, the names of all persons to whom premiums were awarded, with the name of the animal, article, or thing, in respect of which the same was granted, together with such remarks upon the agriculture of the county, as they may be enabled to offer, and a statement of the receipts and disbursements of the society during the year, which report and statement, if approved by the meeting, is to be entered in the journal of the society, and a true copy thereof, certified by the president and secretary to be correct, sent to the central Board within one month thereafter.

The reports received from the various societies throughout the Province, embrace much useful information, respecting the operations of the societies themselves, *the state of agriculture generally in their* respective districts, and the means that are being adopted for its improvement. It is thought advisable, therefore, to present, at the earliest opportunity, an abstract of these reports, embracing, in as condensed a form as possible, such information as seems likely to prove of general interest.

Those societies whose reports were not accompanied by a statement of accounts, are required to supply the omission without further delay.

ANNAPOLIS COUNTY.

BRIDGETOWN AGRICULTURAL SOCIETY.

Amount of subscriptions received, including entrance fees $54.50. Proportion of Government Grant $102. Total Receipts $156. 50. Amount paid in premiums $84. Printing and other expenses $11. Total disbursements $95. Balance in Treasurer's hands $61.50.

President, R. Ansley. *Secretary*, James E. Fellows.

The Society's attention has been chiefly occupied during the past year, in carrying out a general Exhibition of horses, neat stock, sheep and swine. The Exhibition was held on 12th October in conjunction with the Exhibition of the Fruit Growers' Association, and although it was not so large as on some former occasions, yet there were some superior animals in each class, and as a whole was considered satisfactory. The Exhibition proceedings were followed up by a public dinner, at which excellent speeches were delivered by His Excellency Admiral Sir James Hope, Dr. C. C. Hamilton, Rev. Dr. Forrester, and others.

There appears to be a want of zeal and energy in not striving more for general improvement in agriculture in the county. The soil is capable of producing large *crops if properly tilled. The society offer*ed a premium of $40 to any member who would import a thorough bred Devon bull, with pedigree; it is the general impression that this breed is better adapted to the county than any other. Mr. Decie of Granville, has imported a number of Cotswold sheep. The Society respectfully suggests to the Board the propriety of distributing stock imported by Government *gratis* amongst the different societies, where suitable persons can be found to take care of them, instead of selling them by auction. The society also suggests a change in the time for holding annual meetings, from the first Tuesday to the *first week in December, leaving societies* to choose their own day, (Saturday, it is thought, would accommodate the farmers better.) [The time of meeting is fixed by the Act, and can only be altered by the Legislature.]

EASTERN ANNAPOLIS AGRICULTURAL SOCIETY.

Number of members $40. Subscriptions paid $40. Government Grant $80.

President, H. Ince. *Vice President and Treasurer*, D. C. Sanders. *Secretary*, J. E. Chipman. *Directors*, Walter Welton, Maynard Wheelock, B. H. Parker, James Morton, Ingren E. Neily.

The society has only recently been reorganized. "Rule XII. All members will be expected to co-operate with the Committee of Management in their endeavours to advance by every means in their power the objects and interests of the society, and it shall be the duty of each member to furnish the Secretary annually, on or before the first day of December, with written information of the agricultural production, the extent and nature of land under cultivation, the amount and kind of stock kept, the amount and kind of manure applied to the acre, the time of sowing, planting and harvesting the crops, and every other kind of useful information." This is the sure way of enabling the officers of the society to give a correct annual report to the Board of Agriculture.

ANTIGONISH COUNTY.

ANTIGONISH AGRICULTURAL SOCIETY OF THE COUNTY OF ANTIGONISH.

The society was re-organized on 19th September, 1864, at a special meeting called for the purpose, when the Hon. W. Henry explained the provisions of the new Act. The old Antigonish society has transferred its Library to the new one. Number of members 63. Subscriptions paid, $111. Provincial grant, $200. Proceeds of sales of stock, $132.80. Total receipts, $443.80. Cash paid for stock, $120. 83. Expenses of selecting and conveying do., discount, &c., $66.70. Amount paid in prizes $101.70. Working expenses, $32.19. Total amount of disbursements, $321.42. Balance in Treasurer's hands, $122.38.

President, John McDonald. *Vice-President*, R. Trotter. *Secretary and Treasurer*, C. B. Whidden. *Directors*, Moses Somers, Donald Chisholm, T. M. King, John Chisholm, and John Chisholm, West River.

Mr. John Randall, an officer of the society, proceeded to Prince Edward Island to select improved stock, and succeeded in obtaining 25 lambs and a two-year old ram.

Measures were adopted for holding a fair at Antigonish, and prizes were awarded to successful competitors, chiefly for cattle, sheep, horses and dairy produce. At *the close of the fair the imported stock* was sold, and the rams particularly went out at a high figure. The report concludes thus: "There appears to be a growing desire in the out-sections for improved stock, many of the lambs, as well as many pri-

zes being claimed in distant parts of the county. The advantages gained by those who have taken the trouble to improve their stock, is becoming so apparent that quite a rivalry appears to have sprung up in different parts of the county, out of which much good must result."

CAPE BRETON COUNTY.

North Sydney Agricultural Society.

Number of members 41. Subscriptions paid $41. Proportion of Government Grant $64. Cash in Treasurer's hands $105.

President, Thomas S. Bown. *Vice President*, L. Robertson. *Treasurer*, W. G. Johnston. *Secretary*, Alexander G. Musgrave. *Directors*, Moses Hull, Alex. Gillis, Henry Musgrave, John Forbes, James Munn.

The society being newly organized has few operations to report, but promises a "good report" at next annual meeting.

Boularderie Agricultural Society.

Number of members 44. Subscriptions paid $44. Government Grant $69. In Treasurer's hands $113.

President, Hugh McKinnon. *Vice President*, William Fiffe. *Secretary*, Murdoch McDonald. *Treasurer*, Donald McLean. *Directors*, Henry McKinnon, Thos. Campbell, John Ross, James Dunlop, John Fleming.

The farmers of the district have paid more attention to the cultivation of the soil during the last three or four years than in former times, consequently there is a good deal of improvement; there is a larger and more healthy crop of potatoes this year than for the last twenty years; wheat sown in June better than that sown in May. Turnips are not cultivated to any extent in the district, and this season was considered very unfavourable for such a crop; but those who paid particular attention to them had a very good yield, from 400 to 800 bushels an acre. Hay rather light, but oats good.

Sydney Agricultural Society.

Number of members 68. Subscriptions paid $68. Government Grant $107.—*Secretary*, John Ferguson.

COLCHESTER COUNTY.

Stirling Agricultural Society.

Number of members, 53. Total amount of receipts for the year, $268.37. Amount of expenditure, $191.70. Balance in Treasurer's hands, $76.67.

President, Alexander Duncan. *Secretary*, William Creighton.

The society held its annual Show in October, 1864, when about 60 head of cattle, and a number of horses were exhibited. The sum of Five Pounds was granted for premiums on live stock. The society has during the year purchased of clover-seed to the extent of 407 lbs., which has been disposed of mostly to members. Turnip and garden seeds have also been purchased, plough mountings, hay and manure forks, rakes, &c. A balance of stock to the value of £7 1s. 1d. is still on hand. [In future it will be necessary for the society to limit its purchases to articles specially authorized by the Board of Agriculture.] The society has, during the year, imported four superior Rams of the Leicester and South Down breeds at a cost of £14 5s., which have been apportioned off in sections to accommodate members; An Ayrshire bull has likewise been purchased at a cost of £6 10s., and has been given to a person in a central part to serve the society for one season. The report thus concludes:—"The members of our society in general seem to take an interest in agriculture and the improvement of stock, and are willing to comply with any measures that will have a tendency to promote the interests of the farmer."

Upper Stewiacke Agricultural Society.

Number of members, 45. Balance from former year, $75.59. Subscriptions from members, $42. Cash for wheat sold, $19.94. Provincial grant, $75. Total receipts, $212.53. Disbursements,—paid for two Bulls, three Boars, and expense of feeding, $108. Secretary's salary and postages, $4.90. Balance in Treasurer's hands, $99.63. Outstanding debts for stock sold during the past year, $52.18. Outstanding debts for previous years $54.18.

President, Barry Hamilton. *Secretary*, James S. Tupper. *Treasurer*, David McGill Johnston.

The society is to have the use of the stock sold for one year.

[The outstanding debts for stock sold during the last and previous years amount to the large sum of $106.36, and no payments on account of such arrears appear to have been received during the past year. It will be necessary for the officers of this society to take steps for collecting these arrears, without further delay, so that the result may be made known to the Board before the society applies for its next annual grant.]

Upper Londonderry Agricultural Society.

Number of members, 60. Subscriptions paid, $60. Cash in Treasurer's hands, $60.

This society has just been organized.

Shubenacadie Agricultural Society.

Number of members, 41. Subscriptions paid, $40. Government grant, $74.

President, F. R. Parker. *Treasurer*, Samuel Frame. *Secretary*, David Mooro.

The society has been in working order over twelve years, and has bought and distributed much stock and other things for the benefit of the country. During the past season the society made a large importation of stock from Prince Edward Island.

CUMBERLAND COUNTY.

Parrsboro' Agricultural Society.

Number of members 139, from which number, however, an arrearage of $57 has to be deducted.

Receipts: Balance from previous year $53.86. Subscriptions paid $82. Of this sum only $41 was certified as paid at the time of distributing the grants to the societies by the Board of Agriculture. Arrears paid up $2.20. Received for publications $9.08. Government Grant $52. Total receipts $199.14. Disbursements paid for two ram lambs and three rams $34. Bounty on covered sheds for manure $4. Do. on wheat $21.50. Do. on hay-seed $16.50. Do. on oatmeal $11. Do. on compost $40. Balance in Treasurer's hands $66.45.

President, T. D. Dickson. *Secretary*, John S. Smith.

Bounties have been established on wheat, hayseed, oatmeal, and compost. $10 were voted for an oat kiln in process of erection by Wm. Blankhorne at Advocate Harbor, to be paid when finished, if in operation on or before the first Tuesday in April 1865. It has been resolved to spend the sum granted by the Board of Agriculture this year, in the purchase of seven rams of an improved breed, one for each of the seven sections of the county into which the society is now divided, and the remainder of the sum, if necessary, in the purchase of of cattle or swine of improved breed. Two rams, one a prize ram, were purchased at Windsor, for the two lower districts. They give much satisfaction. At present they are owned by the society, and kept by two members free of cost, each member in the district having the privilege of putting 3 ewes to him, and the member keeping him, 6.

Wallace Agricultural Society.

Number of members, 78. Receipts:—Balance in Treasurer's hands from previous year, $75.82. Subscriptions paid $87. Provincial grant, $107. Proceeds of sale of Potatoes, $20.70. Disbursements:—Paid for 210 bushels of Potatoes, $105. Secretary and Treasurer's expenses, $11. Balance in Treasurer's hands, $172.53.

President, P. Mackay. *Secretary*, Don McKay.

AMHERST AGRICULTURAL SOCIETY.

Number of members, 44. Subscriptions paid, $41. Working expenses, $2.95.—Balance in Treasurer's hands, $41.05.

President, Moses Low. *Vice-President*, J. Hiram Black. *Secretary*, W. F. Cutten. *Treasurer*, W. W. Beat. *Directors*, Toney Beat, James M. Layton, Robert Keillor, William Keiver, George W. Freeman.

DIGBY COUNTY.

CLARE AGRICULTURAL SOCIETY.

Number of members, 57. Subscriptions paid $57. Government grant $114.—Cash on hand from last year, $101.69.—From other sources, $143.90. Total receipts, $416.59. Disbursements: Farming Implements and Grass seed, $203.63. Freight and duty and Secretary's expenses, $17.56. Balance in Treasurer's hands, $195.40.

Secretary, Anselm M. Comeau, Junr.

DIGBY CENTRAL AGRICULTURAL SOCIETY.

Number of members, 43. Subscriptions paid, $43. Government grant, $86.

President, William Aymar. *Vice-President*, Robert Reid. *Treasurer*, John Nicholls. *Secretary*, Samuel T. Bacon.

GUYSBOROUGH COUNTY.

GLENELG AGRICULTURAL SOCIETY.

Number of members, 53. Subscriptions paid, $53. Government grant, $106.

President, Samuel Archibald. *Secretary*, John A. Kirk.

Arrangements have been made for the importation of two bulls and four sheep of improved breeds. Owing to the influx of population occasioned by the discovery of gold in our midst, and the ready market for produce thereby occasioned, the farmers in this district have been encouraged to prosecute their calling with more energy and agricultural skill for the last two or three years than they had previously been accustomed to do.

HALIFAX COUNTY.

DARTMOUTH AGRICULTURAL SOCIETY.

Subscriptions paid, $55. Government grant $69. Amount paid for prizes and printing, &c., $102.05. Balance in Treasurer's hands, $21.95.

The time fixed for receiving subscriptions from members is 1st July. The Society's Report embraces full details of the various premiums awarded for Potatoes, Turnips, Mangel Wurtzel, Wheat, Barley, Oats, Beet, Cabbage, Carrots, Seeds, Cloth, Drainage, &c. A ploughing match was held at Mr. Clifford's farm on 19th October. There was a spirited competition, and five prizes were awarded, varying in value from $10 to $3.

President, M. Tobin. *Vice-President*, A. Khun. *Secretary*, T. Short. *Treasurer*, A. Tulloch. *Directors*, A. Tobin, John Bissett, A. Farquharson, jr., P. McNab, John Morash.

AGRICULTURAL SOCIETY OF THE EASTERN DISTRICT OF THE COUNTY OF HALIFAX.

Number of members, 62. Subscriptions paid, $62. *Government grant*, $87.

The Society has existed for thirty years.

Secretary, James Kent.

LOWER MUSQUODOBOIT AGRICULTURAL SOCIETY.

Number of members 61. Subscriptions paid, $61. Government grant, $84.

President, Robert A. Logan. *Secretary*, Charles N. Sprott, Middle Musquodoboit.

The Society has existed for eleven years. The members have agreed to devote their funds this year to the purchase of improved breeds of sheep and pigs.

WESTERN HALIFAX AGRICULTURAL SOCIETY.

This Society is in course of organization with a view to apply to the Board of Agriculture at their next meeting, to be recognized as entitled to participate in the Government grant. About 50 members have already joined. The Society embraces the western part of Halifax county, that is all west of Halifax, including the city, Sackville, Hammond's Plains, &c. Annual subscription of members, $2.

COUNTY OF HANTS.

WINDSOR AGRICULTURAL SOCIETY.

Number of members 40. Balance from previous year, including grant of 1863, $53.72. Subscriptions paid $80. Received for use of thrashing machine and entrance fees at cattle show, $12.30. Government grant $157. Total receipts. $303.02. Prizes paid and expenses of cattle show $96.62. Paid for bull, $62. Other payments $11.35. In Treasurer's hands $133.05.

President, J. O. King. *Vice-President*, John Brown. *Treasurer*, James Dill. *Secretary*, Samuel Palmer. *Directors*, Peter Barnham, Samuel Mumford, Robert Bacon, Matthew Alison, James M. Geldert.

The cattle show of October last was better attended than any for several years past. The show of live stock, grain and roots, was very creditable to the district affording conclusive evidence that agriculture in all its branches is in a steady state of advancement.

An annual cattle show has been held by the *Hants* Society on the 2nd Tuesday of October since the year 1836, and is generally considered to have been a strong stimulant to improvement in the breeding of live stock, field culture, and in fact to everything connected with farming operation.

Many members of the former Society at the time of its organization (in 1834) were impressed with the idea that if a regular cattle fair to accommodate this and the surrounding districts could be established in connexion with the yearly exhibition, it could not fail to be advantageous to all parties concerned in such matters; buyers and sellers would be brought together, and arrangements made by which much valuable time might be saved. A good deal of exertion was made and strong hopes of success were entertained for a few years the exhibitions being well attended and a great deal of business transacted, but for several years past nothing but what was intended for competition for prizes has been brought on the ground. It is thought that an attempt to establish a fair for the purchase and sale of live stock and farm productions at the present time might be more successful, and that it is a subject worth consideration by agricultural societies.

NEWPORT AGRICULTURAL SOCIETY.

Number of members, 43. Subscriptions paid, $43. Government Grant, $83.

President, James W. Allison. *Vice-President*, Samuel Chambers. *Secretary* and *Treasurer*, Charles Cochran. *Directors*, John Weston Harvie, Scott Nelson, Joseph Rathburn, Robert Allison, Nelson Wolaver.

INVERNESS COUNTY.

NORTH EAST BRANCH OF MARGAREE AGRICULTURAL SOCIETY.

Number of members, 43. Balance in hand from previous years, $129.50. Subscriptions paid, $43. Government grant, $62. Price of pig sold and arrears received, $23.73. Total receipts, $278.23. Paid for P. E. Island stock, $146.65.—Working expenses, $20. Balance in Treasurer's hands, $91.58.

President, John Burton. *Vice-President*, Edmund Ross. *Secretary*, John Munro. *Treasurer*, William S. Hart. *Directors*, Joseph Ingraham, Murdoch A. Ross, John Cranton, Ebenezar Leadbetter, Murdoch Macdonald.

The Report of this Society speaks of the increased energy and intelligence manifested by the farmers of the district. The chief obstructions to agricultural improvements are the high price of labour, the limited capital of the farmers, and deficiency in means of information.

During the year the society purchased in Prince Edward Island, two bulls, of Durham and Scotch breeds; eleven Leicester ram lambs, a Leicester ewe; two pigs, and a quantity of seed oats and potatoes.

South West Margaree Agricultural Society.

Numbers of members 45. Subscriptions paid, $45. Government grant, $64. Paid for stock, &c., $109.90. Proceeds of stock, $39.66¼.

President, Hugh Gillis. *Secretary*, Alexander McDonald.

The society purchased improved stock, &c., in Prince Edward Island, as follows: 13 rams, 3 ewes; 1 boar; 15 bush. oats, 4 bush. potatoes.

Mabou and Port Hood Agricultural Society.

The Society was organized on 23rd September 1864. Number of members, 61. Amount of subscriptions raised $86. Government grant, $114. Total amount of funds in Treasurer's hands, $200.

President, Hon. William McKeen. *Vice-President*, Peter Smyth, M. P. P. *Secretary* and *Treasurer*, Hugh McDonald. *Directors*, Samuel McDonnell, G.C. Lawrence, Allan Cameron, Donald Cameron, John H. McKeen.

Whycogomagh Agricultural Society.

In September last a meeting was held at Whycogomagh for the purpose of organizing an Agricultural Society. The members did not intend to apply for a grant from the Board of Agriculture for 1864, consequently no official report has been received.

KING'S COUNTY.

King's County Agricultural Society.

Number of members, 45. Subscriptions paid $43. Balance from former years, $45.26. Government grant, $81. Total receipts, $169.26. Paid for stock and keep $48.75. Corn sheller, $7.10. Cultivator, $22.50. Postage, $0.25. Balance in Treasurer's hands, $90.91.

President, Amos Black. *Vice-President*, Leonard Newcomb. *Second V. P.* James W. Harris. *Secretary and Treasurer*, George Hamilton. *Assistant do.*, Thomas Tuzo. *Directors*, Edward P. Borden, William Stewart, Charles Reid, William Falkner, George E. Cose.

West Cornwallis Agricultural Society.

Amount of subscriptions received from members, $40. Provincial grant, $78. Total receipts, $118. Paid for one Durham bull, one year old, $33. 1 ram, $24. 1 ewe lamb, $15. Expenses conveying sheep, &c., $5. Total amount of disbursements $77. Balance in Treasurer's hands, $31.

President, Hugh Newcomb. *Vice-President*, Benjamin Fergues. *Secretary*, Elias Calkins. *Treasurer*, Wellington Clark. *Directors*, James P. Kinsman, Lewis Morris, Elijah Palmer, Andrew Chipman, Samuel White.

The members of the Society are using every exertion to improve their stock. They have a bull of the short horn Durham breed, one year old, (bought in July) which took the first prize at the Kentville Exhibition, also one ram and one ewe, bought at Windsor, of the government stock. They have appropriated the balance of their funds for the past year for the purchase of one more bull of an improved breed, as soon as it can be procured. The farmers in the locality have, during the last few years, made considerable improvement in their farms, by adopting a better method of cultivation, deep ploughing, draining, and building sheds for manure to keep it from the weather. A good deal of attention has been given of late to the improvement of orchards; many young trees have been set out, which are now beginning to bear, and promise to be a source of wealth to the district. The Society highly appreciates the encouragement received from the Board of Agriculture.

Union Agricultural Society of East Cornwallis.

Number of members, 43. Subscriptions paid $41. Government grant, $81. Total receipts $122. Cash paid for stock $114. Sundry bills, $2.40. Balance in Treasurer's hands, $5.60.

President, Richard Starr. *Secretary*, Dr. C. C. Hamilton, M. P. P. *Treasurer*, Leander Eaton.

The Society was formed in July 1864. The funds have been expended in purchasing the Durham bull, imported by the Board of Agriculture from New Brunswick, ($88,) 1 ram, ($16,) and one ewe, ($10,); all are considered fine animals, and it is anticipated that they will prove of value in the district. Nothing can exceed in importance the improvement of our neat stock, and the members of the Society hail with pleasure the determination of the Board of Agriculture to import pure Durhams from England. In 1861, the number of cattle in the Province was 262,297; King's County had, out of that number, 16,932. Horses also require improvement, both in size and activity. The Society looks forward with much interest to the proposed exhibition of 1866, and promises cordial co-operation.

LUNENBURG COUNTY.

Lunenburg Agricultural Society.

Number of members, 41. Subscriptions paid, $41. Government grant, $82. Balance in Treasurer's hands, $123.

Secretary, Daniel Owen.

The Society having been recently formed, is not prepared to report any transactions of consequence.

PICTOU COUNTY.

Egerton Agricultural Society.

Formerly called the Hopewell Agricultural Society. Number of members, 44. Amount of funds in hand from previous year, $37.74. Subscriptions paid, $44. Provincial grant, $80. Amount ot prizes paid, $80. Incidental expenses, $12.32. Balance in Treasurer's hands, $18.42.

President, Finlay Cameron. *Vice-President*, Robert McNaughton. *Secretary*, Donald Gray, Albion Mines. *Treasurer*, Thomas Grant. *Directors*, John D. Fraser, Roderick McKay, Robert Carlton, Daniel Cameron, John McKay.

The annual exhibition of this Society was held at Fish Pools, East River, on Tuesday 18th October, and is reported as having been a great success. It was divided into six departments: 1st, horses and cattle; 2nd, sheep and swine; 3rd, cloths and carpets; 4th, mats and hosiery; 5th, grain and seeds; 6th, butter, cheese, fruit and roots.

Maxwelton Agricultural Society.

Number of members, 40. Subscriptions paid, $40. Provincial grant, $73.

President, Walter Murray. *Secretary*, James W. Patten, Lower Barney's River.

Pictou Agricultural Society.

The Society has now completed the 28th year of its existence, and has been re-organized in accordance with the requirements of the new Act. Number of members, 51. Subscriptions paid, $52. Provincial grant, $87. Total receipts, $139. Expenditure, $128.59. Balance in Treasurer's hands, $10.41.

President, David Matheson. *Secretary*, John McKenzie.

An Agricultural, Horticultural, and Industrial Exhibition was held by the society in the town of Pictou, on 1st November 1864, at which the sum of $120 was offered as prizes for the best specimens of live stock, agricultural and horticultural productions and domestic manufactures. Very creditable specimens were exhibited in the various departments, yet the exhibition was upon the whole not equal to many that had been held on previous occasions. This is attributed in some measure to the restriction of the competition to members of the society. A Ploughing Match was not held this year,

but it is proposed to resume ploughing matches another season. The committee's report embraces many useful suggestions. It is proposed to hold exhibitions once in two years, the funds during alternate years to be devoted to importation of stock, improved seed, &c. In consideration of the importance of a proper system of farm culture, it is proposed to have a visiting committee to report upon the farms of members, as to yield of crops, culture, and rotation, arrangement of barns, yards, &c.; medals and other tokens of merit being given as first, second, and third prizes, to the most deserving farmers. The report is thus concluded:—"The committee hail with much satisfaction the recent Act for the encouragement of agriculture by the Legislature, and view it as the dawn of brighter days for the agriculturists of Nova Scotia, and feel, from the encouragement held out, that if we, with energy, industry, and skill, pursue our avocations, with the blessing of God upon our labors, there shall soon be abundance within our borders for man and beast and also to spare to others."

VICTORIA COUNTY.

Baddeck Agricultural Society.

Subscriptions paid, $44. Government grant, $68. Amount in Treasurer's hands, $112.

President, Alexander Taylor. *Vice-President*, William Jones. *Secretary*, Robert A. Jones. *Treasurer*, James Crowdis. *Directors*, David McCurdy, David Dunlop, George Ingraham, Dougald Robertson, Abner Crowdis.

The officers of this society meet quarterly. Arrangements are being made for the purchase of breeding stock and seeds.

St. Ann's Agricultural Society.

This Society was formed on the 15th, September, 1864. Number of members 41. Subscriptions paid, $41. Provincial grant, $80. Arrangements are in progress for the purchase of two young bulls, and for introducing seed of the best improved spring wheat. Quarterly meetings are held for the purpose of discussing subjects connected with agriculture.

President, John Robertson. *Vice-President*, Luther McLeod. *Secretary*, John Morrison. *Treasurer*, Laughlin McKinnon. *Directors*, Duncan Morrison, John McAuley, Angus McAuley, John McKay, Murdoch McDonald.

North Shore St. Ann's Agricultural Society.

Steps are now being taken by some of the leading farmers in the North Shore Settlement of St.Ann's, for the formation of a society, but the organization is not yet sufficiently advanced to enable the society to participate in the Government grant.

Middle River Agricultural Society

Balance in Treasurer's hands, $108. Subscriptions paid, $81. Government grant, $120. Total receipts, $309. Paid for 250 bushels improved black oats, $125. Agricultural implements, $64. Balance in Treasurer's hands, $120.

"The Expenditure has been under the old Act, previous to the organization of the various societies under the provisions of the new Act."

YARMOUTH COUNTY.

Yarmouth Township Agricultural Society.

Balance from previous year, $15.06. Subscriptions paid, $40. Government grant, $80. Disbursements, $9. Balance in Treasurer's hands, $126.06.

President, Josiah Raymond. *Secretary*, James Crosby.

The society is making arrangements for the purchase of improved stock, particularly sheep.

In respect to information on the Agriculture of the County, it is to be regretted that so little interest is felt, and that so few of our farmers can be induced to contribute the small sum required to constitute themselves members of this society, many of whom are ready to acknowledge that the society has been of essential benefit, especially in the introduction of improved breeds of animals, &c. It is to be hoped that a deeper and more wide spread interest may be incited, by the more liberal appropriations of the Legislature for its advancement and encouragement, and that more important benefits may yet be realized.

HISTORY AND CULTIVATION OF THE TURNIP CROP.

It is a remarkable fact that the origin of many of our most important economical plants is either involved in obscurity or altogether unknown. Such is the case with several of the cereals, and was particularly so in regard to Wheat until Fabre a few years ago showed it to have taken its rise from a insignificant weedy grass which has been long open to observation on the southern shores of Europe. Such is likewise partially the case with the Turnip. Familiar as the plant, in its many varieties, is to us in cultivation, the researches of botanists have not been able to tell us precisely the country or countries to which the wild plant was originally indigenous. There is a wild Turnip, indeed, found in the fields and by the way sides; but as this weed grows only in localities where turnip crops have been in cultivation, it is reasonably believed, that instead of the plant which originally gave rise to our esculent varieties, it is rather to be regarded as an accidental straggler from the farmer's fields. In all civilized countries, cultivation, and the other arts of industry are rapidly bringing about most remarkable changes in the character of their native Floras, so much so, that in lands long civilized, it is often impossible to tell from observation what are indigenous and what exotic plants. To the Turnip we are quite entitled to apply the line of reasoning adopted by Link, the celebrated botanist, in regard to Rape:—"The original native country of many cultivated plants cannot now be determined by empirical proof, but only by rational investigation. Thus Rape is no longer met with in its wild state, but when we adduce proof from all extra-European countries that it is not indigenous to them, we must conclude that it is of European origin, although its wild state has disappeared through cultivation."

The common wild Turnip (*Brassica Rapa, L.*) is a biennal plant belonging to the Natural Order *Cruciferæ* (*Brassicaceæ*, Lindley) an order readily distinguished from all others by the cruciform flowers of four petals, by the staments being tetradynamous (that is four long, and two short), and by the fruit, which is usually either a pouch or a pod, with a central replum.

Although the Turnip was duly appreciated by the Romans, it must be regarded as quite a modern feature in British as in American husbandry. Gerard's account of the Turnip would lead us to believe that, in his time, it was only known in England as a kitchen-garden crop:—"It groweth in fields and diuers vineyards, or hoppe-gardens, in most places of England. The small turnep groweth by a village neere London (called Hackney), in a sandie ground, and are brought to the Crosse in Cheapside, by the women of that village to be sold, and are the best that euer I tasted. The bulbus or knobbed roote, which is properly called rappa or turnep, and hath given the name to the plant, is many times eaten raw, especially of the poor people in Wales, but most commonly boiled."

The time of the Turnip's original introduction to Britain as a field crop is not distinctly known, but it seems to have been applied to the feeding of cattle about the middle of the seventeenth century.—It was not till the beginning of the eighteenth century that its value was sufficiently appreciated to lead to its general culture. Lord Townshend, while attending George I. in a continental tour, remarked the extensive and beneficial cultivation of Turnips throughout Germany for feeding purposes; this crop seemed to spread fertility over lands naturally barren. He was thus led to introduce the

crop to his own tenants, and so warmly interested himself in the matter as to secure from the wits and courtiers of his own day the cognomen of "Turnip Townshend." His Lordship's zealous exertions, seconded by the land-owners in his neighbourhood, soon resulted in the spread of turnip cultivation over the whole county of Norfolk; whence it gradually made its way into every other district of England, leading to the cultivation of vast heaths, wastes, sheep-walks, and rabbit warrens, and raising rents from one or two shillings to fifteen or twenty shillings per acre. In consequence of these improvements, remarked Sir Walter Scott, 'some of the finest corn crops in the world are now growing upon lands, which before the introduction of the turnip husbandry, produced a very scanty supply of grass for a few lean and half-starved rabbits." The general field culture of turnips in Scotland, dates from the middle of last century; but Swedish Turnips (which although originally of Swedish origin, reached Britain through Germany) were not general in Scotland before the beginning of the present century.

When Turnip cultivation was first introduced, sowing broadcast was adopted, and continued in practice, especially in Norfolk, a long time. A much more profitable system is now employed, namely, cultivation in rows, which not only economizes labour, but is greatly superior with respect to produce, and deserves to be classed, as one of the greatest improvements in modern culture. And it has not only secured more abundant crops, and at less expenditure of labor, than the ancient method, but has likewise supplied a ready means of improving worthless soils by subjecting them to the only species of cultivation for which they are applicable.

This is one of the most important crops of modern husbandry, and of late years has been greatly extended in consequence of the failures of the potatoe,—so much so indeed, that some agriculturists begin to fear that it is cultivated to an unprofitable extent in England. Certain it is that its culture is pushed beyond all limits of soil and climate. In all parts of the country even in the stiffest undrained soils, we have remarked the attempt to cultivate turnips, in some places where another crop would afford more profitable results. It is not so, however, in Nova Scotia; our farmers may be said to be only beginning to appreciate the value of a crop which is especially suited to our soils and climate.

While Tufnips in general thrive on a light soil, there are certain varieties more suitable than others for certain conditions of soil and climate. The Sweedish kinds in particular, while the hardiest of the race, and requiring a longer period for their development than the others, likewise require the best lands, which moreover must be prepared by heavy manuring; they will even thrive in soil which has a large admixture of clay. We often see theoretical writers appeal to the native conditions under which a wild plant flourishes as necessarily requiring imitation in the successful culture of its improved varieties. This, however, is an erroneous assumption, and could scarcely lead to a greater error in any department of practical farming than in the cultivation of Turnips. Where, for example, do we find the wild Turnip growing so much at home, as a native plant, as on the borders of neglected fields and on the dry thin soil of rocky pastures? To grow our improved varieties in such situations would cause them speedily to revert to the original form of the species. The value of the plant, as an agricultural plant, entirely depends upon the excessive (abnormal) developement of one of its organs,and to keep up this abnormal condition of the organ, it is essential to continue the cultivation of the plant under circumstances similar to those which first induced it. Hence the care which is necessarily bestowed in manuring and otherwise carefully preparing the soil for this crop, in providing, in fact, for the cultivated plant conditions precisely the converse of those naturally sought for by the wild one.

We have already indicated the preference of turnips for light dry soils; they will succeed, even in very sandy soils if duly prepared by judicious manuring.—But all clayey soils and other heavy, undrained lands, are more or less unsuitable; although a perfect system of drainage and complete tillage have converted even the most stubborn soils into turnip land. In fact, whatever be the nature of the soil, thorough drainage, deep tillage and pulverization, and judicious application of suitable manure, are essential to successful cultivation. On stiff and moorish soils an application of lime will be attended by beneficial results.

In the rotation, a turnip crop usually follows a grain crop, especially wheat or oats. The preparation of the soil is similar to that for other green crops.

So soon as the grain is secured, the land should be prepared by deep ploughing, keeping in view, 1st, that soil cannot be too deep for turnips; and 2nd, that it is necessary to pass the plough below the roots of Triticum (Couchgrass) in order that this most noisome of all weeds may be effectually removed. In the following spring, when the grain and potato crops are in, and other pressing work past, the plough should be again applied to the turnip land, together with the harrow, roller, and other available means, for cleaning it perfectly and thoroughly pulverizing it; the weeds and stones being carried off the field. Some agriculturists prefer cleaning the ground thoroughly in the autumn, than which there is perhaps no plan so cheap or effectual, as it materially lightens the spring work, rendering the cleaning more perfect, and facilitates the whole process of spring-preparation and sowing, which would immediately follow each other. In the case of Swedes, the ground should always receive good Autumn preparation.

The turnip crop ought to receive a liberal supply of manure, at least 10 or 12 tons of ordinary farm manure per acre; but it is usual to give a larger supply than this even to land in good heart. Town manures are valued for this crop; and crushed bones have been applied with the best effects, either when covered in the drills in the manner of ordinary dung, or when sown by machine along with the seeds, so as to be in immediate contact in the drill with the latter. Of late years guano has been largely used as a turnip manure, either separately or combined with other manurial substances. 2 cwt. of guano and 12 loads of farm yard manure per acre are considered sufficient to ensure a good crop. Numerous experiments have been undertaken from time to time to test the value of different manures, but the kinds of soil, modes of cultivation, and qualities of manures are so variable as to render any generalization difficult. In reporting a series of experiments to the Highland Society, Mr. Wilson concluded, that when guano and bone dust could be obtained at a moderate price, they might, in all cases, be applied with the farm-yard dung to turnips with advantage. He found the crop to be greater when these two substances were applied together than when applied separately; guano applied alone causes a rapid growth, and the turnips have a tendence to ripen prematurely; while, on the other hand, the bone dust causes them to come away slowly, but continues to grow them till the season is far advanced.—When both are conjoined, the guano secures a regular braird, while the bones keep the turnips in a growing state during autumn.

From the above remarks it will appear that guano, bones, and similar manures, are not so advantageously applied alone as when mixed, showing that singly they are not sufficient for this crop, whose return depends, more than any other, upon the manure employed.

All practical agriculturists agree that after the land is duly prepared and the drills made, the seed should be committed to the soil with expedition; but while all admit the importance of this rule, there are still many who neglect it in practice. In dry seasons this should be particularly attended to. The turnip seed naturally comes away quickly, and it is therefore essential that it should be placed in a moist bed capable of supplying the wants of rapid growth; but if the land be allowed to lie for several days after being prepared and the surface thus get parched

it is impossible that a good braird of healthy plants can result, whatever be the character of the soil or the quality of the seed. And a second evil follows. The weakness of the seedlings greatly increases their liability to the attacks of the fly and to other maladies; for it is well known in Vegetable Pathology, as in Animal, that weak individuals are not only the first that suffer from epidemic distempers, but are likewise most liable to the prey of parasitical insects and fungi. In fact the best time for sowing turnips is immediately after or during a very gentle shower, but if the ground be wet, or severe rain follow the sowing, the results are often injurious, especially in clay soils. An abundant supply of seeds should be given, at least three or four pounds per acre; but in the case of Swedes this is not imperative, as blanks may be filled up by transplanting. It is a prevalent mistake in this country, as well as in the United States to exercise parsimonious economy of seed. Sowing takes place early in July, but Swedes may be sown in June. The soft white turnips may be delayed till late in July. In course of three weeks after sowing, the plants will have attained several inches in height, and then require the application of the horse-hoe, for the destruction of the numerous annual weeds that will have sprung; this is followed by the hand-hoers, who thin out the plants to proper distances apart, and rid them of the remaining weeds. In a fortnight more, another crop of weeds will probably call for another application of the horse hoe to be followed as before by the hand-hoers. The only other operation required is the earthing up of the bulbs by the double mould-board plough, which serves to destroy any additional weeds and keeps the bulbs high and dry in the wet weather that may be expected to wards winter.

When the pastures cease to yield a supply of herbage, the turnips are to be taken up as required for feeding, the softest white sorts being taken first as the kinds that are most liable to suffer from frosts and wet weather. White turnips should all be consumed before frost comes on, as they cannot be long kept in store.

As a certain portion of the turnip crop, more especially the Swedes, is intended for Winter and Spring food, it becomes necessary to store the bulbs before the approach of winter.

Various kinds of turnip-slicers, turnip-graters, and pulping machines are in use for the purpose of reducing the bulbs to such a state of comminution as to facilitate mastication, and particularly to enable the farmer to mix with them chaff and other kinds of food that could not be conveniently used alone. In feeding horses with turnips this is the preferable mode of offering them.

Of all cultivated plants, the genus *Brassica*, to which the turnip belongs, is peculiarly prone to run into extraordinary in some cases grotesque, forms. *Brassica oleracea*, in its numerous varieties of Drumhead, Sugar-loaf and open Cabbage, Scotch Kail, Broccoli, Kohl Rabi, and Brussel's Sprouts, presents one of the most motley family groups that ever puzzled a Vegetable Morphologist. The turnip species has not caught up quite so many separate phases of character, but enough to render it one of our most important agricultural products, and to incite cultivators to still further improvement in the way of raising new and superior varieties.

In selecting from the numerous list of known sorts, the farmer must be partly guided by the intrinsic value of the varieties, partly by the capabilities of the land he means to lay under this crop, and partly by the special manner in which he intends to use the produce. There are many good sorts, each of which has its peculiar recommendations; but experience alone can guide the farmer in selecting those best suited for the various soils of his farm, and for the special mode of feeding, &c., which he follows.

The following list of sorts includes all the varieties most worthy of cultivation. We have appended notes indicating the peculiarities of the principal sorts:—

SWEDISH TURNIPS: *Lothian Purple-top.*
Green-top. An old variety, much esteemed by several growers.
Laing's Purple-top. A valuable, hardy and distinct variety, of fine form, grows to large size, and late in running to seed.
Skirving's Purple-top. An excellent sort. Yields a great weight per acre, hardy, and keeps well.
Mason's Purple top.
Fettercairn Green-top.
White fleshed. Considered inferior to other Swedes.

RED TURNIP: *Round. Tankard.*
Woolton Hybrid. Said to be a superior variety.
Globe.

GREEN TURNIPS: *Globe.* Produces a good crop, and comparatively hardy.
Round. Tankard.

WHITE TURNIPS: *Globe.* If the seed be got pure this will prove a very useful sort, growing in any soil, arriving quickly at maturity, and yielding a large amount of food.—Valuable for early use.
Pomeranian Globe. Round.
Six Weeks or Stubble. Arrives sooner at maturity than most other sorts, suitable for sowing in Autumn after a corn crop, hence the name of the variety.
Tankard.

YELLOW TURNIPS: *Green-top Bullock.* An esteemed old variety, of medium size.
Purple-top do. Resembles the last, except in color. Approaches the Swedes in solidity.
Skirving's Purple top Yellow Bullock. An improvement on the preceding, and an excellent feeding turnip, producing a large crop, and highly esteemed for dairy purposes; but ought to be protected so soon as frosts begin.
Tweddale Purple-top Yellow Bullock. A carefully improved variety.
Border Imperial Purple-top do. Said to be in full perfection earlier, and to stand as long as Swedes. A very free grower: but in some localities appears to be liable to mildew.

HYBRID TURNIPS: *Dale's.* A quick grower, and a very superior sort, combining to some extent the large size of the white Globe with the firmness of the Swede. Well adapted for poor soils. Variable in form. Ought to be seeded from carefully picked and transplanted bulbs.
Cruicksfield Green-top. A new hybred between the Sweedish Turnip and Kohl Rabi.

The respective merits of the different sorts of turnips, their applicability to different purposes, and for different localities and soils, have long engaged the attention of agriculturists, and the subject has been fully discussed before the Highland and Agricultural Society of Scotland.—Mr. Gibson, Woolmet, East Lothian, states that the following are the sorts grown around Edinburgh:—1. White Globe; 2. Hardy Green Globe; 3. Purple-top Yellow; 4. Green-top Yellow; 5. Dale's Hybrid; also Swedes, of various kinds. The first he characterises as the most valuable of all for early use, although its cultivation had been discouraged by the sale of spurious seed; the second is esteemed for crop and hardiness, and for leaving the land in better condition than some other varieties; the 3rd is esteemed more highly by the dairyman than any other sort, which is attributed to the careful way in which the variety has for many years been selected and grown for seed; the 4th is likewise a valuable variety; the fifth produces a good crop, is well adapted for poor soils, and worthy of receiving more attention in proper selection from seed than has hitherto been the practice. While the varieties enumerated are mostly used by dairymen, the varieties of Sweedish turnip, on the other hand, are chiefly sought after by those engaged in the manufacture of beef and mutton. "It is now fifteen years," says Mr. Gibson, "since I got Skirving's Liverpool Improved Purple-top Swede from himself. I was so bigoted in opinion as to the superiority of what was generally called East Lothian Swede, and some other varieties grown there and elsewhere, that I continued to grow them alongside of Skirving's Swede, year after year, but

always with the same result. When sold by public roup, the Skirving variety generally brought £4 to £6 per acre more price than any other. I have been told that this arises from their showing more bulb above ground than some other varieties; but I have often tested their weight, and generally found an excess in their favor to justify the difference of price." Then as regards the feeding quality of turnips:—"I am satisfied the varieties most suitable for cattle-feeding in this district are Globe and Yellow for the months of September and October, and Skirving's Swede thereafter. I have generally found cattle feed better after the first two months, on Swedes alone than they do upon the other varieties, even with the addition of 5 lb. per day of oil-cake. When the turnips are to be eaten on the ground by sheep, the varieties I sow are, Purple-top Yellow, Hardy Green-top Globe, Dale's Hybrid, and Skirving's Swede, consuming the Swede's last, and the earliest sown of the other varieties first." Feeding off in this way is not suited to our Nova Scotia seasons.

The precise feeding value of different varieties of turnip and the influence of soil and culture in modifying the same, have not been so fully investigated as appears to be desirable. The Marquis of Tweeddale, conducted a series of important experiments at Yester, with a view to the improvement of the turnip root, and came to the conclusion that density was the true index of value in turnips for cattle, and the United East Lothian Agricultural Society seconded his Lordship in working out the subject. "To illustrate the correctness of this principle," says the Marquis, "it will be suitable to divide the constituent parts of a turnip into those heavier and those lighter than water—the former are woody fibre, albuminous compounds, sugar, gum, and other allied principles, phosphates and other salts; the latter consist of oil and air.—All the useful compounds of the root (with the exception of oil) are denser than water, and accordingly in those turnips that are lighter than water, the low density must mainly be attributable to the amount of air present." After entering into many other details as to the small amount of oil, &c., in turnips, his Lordship arrives at the conclusion that, bulk for bulk, there is a greater weight of nutritious matter in the heavier of two turnips, both of which are lighter than water. And he thinks that a similar conclusion must be extended to Swedes, which are generally heavier than water. He further thinks that there is good evidence to show in regard to seed produced from roots of a given density, that the qualities of the parent will be certainly transmitted to its offspring. In France, the percentage of Beet-root having been nearly doubled by selecting, for a series of years, roots of the greatest density for seed, there seems reason to hope that good results may attend the progress of turnip-improvement in this direction.

In the case of a plant whose esculent properties depend so much upon a high state of cultivation, it is of great importance that not only a selection of suitable varieties be made, but likewise that two conditions shall have been carefully observed in the saving of the seed. The first of these is that the variety shall have been grown apart from other Brassicaceæ, which is necessary to insure its coming true to kind, these plants being extremely liable to sport, from hybridising taking place by "natural" means, such as the carrying of pollen by a bee from one variety to the flower of another. Secondly, that the crop, from which the seed has been saved, has received high cultivation, calculated to sustain the character of the variety, and prevent any tendency of reversion to the parent weed. For more effectually securing this, and conducing to the formation of good bulbs, seed-raisers are in the habit of carefully selecting and transplanting the roots intended for seed-bearing; this operation is attended with highly beneficial results, the seedlings of transplanted bulbs being likewise, we believe, less liable to Anbury and other maladies, than those of plants not so treated. Here it may be remarked that an economical method of raising turnip seeds has been recommended by a correspondent of "The Scottish Agricultural Journal." He found that by cutting off the bulbs of Swedish Turnips in December, and planting the leafy tops, the latter pushed forth new roots, and bore a heavy crop of seeds during the following season. By these means he calculated a saving according to the value of the turnip bulbs.

Even with the greatest care, by the transplanting of bulbs, and their seclusion from other varieties with which they might be contaminated, the seed-raiser cannot always depend upon results in all respects satisfactory. Under the best of treatment, seed will sometimes prove spurious. So much, indeed, is this the case that seedsmen are in the habit of seeting apart a field for the purpose of sowing every season, samples of all the turnip seeds sent out from their establishments, that the accuracy of the sorts may thus be tested under their own eye. This is likewise a safe guard against roguish customers, who might take advantage of the fickle character of turnips, to prefer unfounded charges against them for selling spurious seed.

The turnip crops are liable to various maladies. The "turnip fly" (*Haltica nemorum*) is its great pest. This insect attacks the infant plant so soon as it expands its cotyledons, and sometimes destroys whole fields. Various remedies have been proposed, such as burning the stubble, application of odorous manure distasteful to the "fly," mixing the seeds with sulphur, excessively thick sowing in the drill to provide for the insect and have a crop left, steeping the seeds in water to promote rapid germination, sowing hot lime over the young plants, watering every other day 5 or 6 times if necessary, catching the flies with a tarred cloth, fumigation by burning rubbish to windward of the field, drawing freshly painted boards over the field, an application of wormwood infusion, powdered sulphur strewed over the seed leaves, snuff, heavy rolling, &c. We believe, however, that the only remedy is to dust over the seminal leaves of the young turnips with quick-lime, a bushel of which is sufficient to dust an acre. Lime-dust and road-dust have proved good substitutes, the latter probably from the lime which it contains. Powdered plaster would answer better. These substances should be applied in the morning when the dew is on the leaves.

The disease called Anbury or Fingers-and-toes, is also very injurious in Britain, showing itself in the sudden flagging of the plant and the formation of excrescences on its root. It is most prevalent in dry seasons, but its cause has not been well accounted for. A maggot is occasionally found in the deformed roots, but whether the cause or consequence of the disease has not been determined. No remedy is known.

The wire-worm, swarms of Aphides, and numerous other farm pests, affect this crop, but not so seriously as the two preceding ones.

In conclusion, we would briefly remark that the introduction of turnip cultivation has speedily brought about a complete revolution in British husbandry, and that its extension in Nova Scotia is likely to be followed by the best results. As we have already seen, it has been instrumental in creating fertile fields, where all before was bleak and barren, while it has enabled the farmer to carry out improvements in the culture of other crops. To the turnip crop indeed, is due the eminence o modern British farming. In the words of Professor Low, it "has enabled British farmers to carry the practice of breeding and feeding domestic animals to a state of perfection in which no other country has yet been able to rival Great Britain." Let the farmers of Nova Scotia imitate so good an example.

RECENT IMPORTATION AND SALE OF STOCK FROM NEW BRUNSWICK.

A great Triennal Exhibition of stock and produce having been held at Fredericton, N. B., in October last, the Board of Agriculture of Nova Scotia took steps for securing some of the most desirable animals that might be brought forward on that occasion. Only a few were purchased, the funds at disposal of the board being limited. Dr. C.C.Hamilton,M.P.P., assisted by John Brown, Esq., of Falmouth, made the selection, which was afterwards highly approved of by the Board. Previous notice having been sent to the Secretaries of the various Agricultural Societies throughout the Province, the whole of the animals were sold by public auction at the Windsor Depot, on the 28th October.

The pure North Devon Bull "the General," (which gained the first prize at Fredericton,) was bought by the Windsor Agricultural Society. This society likewise received a fine Ram.

The first prize Durham Bull, raised from a bull and cow imported from England, was purchased by John L. Newcomb, Esq., for the Union Agricultural Society of Cornwallis. One Ram and one Ewe were likewise obtained by the society.

Two grade Bull Calves were purchased by Messrs. William Haley and David Scott, respectively.

One Ram and one Ewe were purchased by the West Cornwallis Agricultural Society. The Hon. R. A. McHeffey purchased one Ewe Lamb. One Ram was purchased by Robert W.Allison, Esq., for the Newport Agricultural Society.—More Rams might have been sold at remunerating prices. The importation, although a small one, will exercise a beneficial effect upon the stock in the country, all the animals having fallen into good hands.

INTERNATIONAL EXHIBITION AT DUBLIN IN 1865.

In compliance with the request of the Secretary of State for the Colonies in connection with the Great Dublin International Exhibition of 1865, His Excellency the Lieutenant Governor has taken decisive steps with a view to a proper representation of the resources of our Colony. An influential and efficient organization has been formed. The report of the committee relating to the character and cost of the proposed representation has been submitted to our Government, who have readily agreed to support the committee in their efforts.

The following is a list of the respective committees engaged in the promotion of the work:

COMMITTEE:

His Excellency the Lieut. Governor, (chairman.)

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To the Editor of the Agricultural Journal.

Sir,—

We are making an effort to secure a proper representation of our cereals and woollen and linen manufactures. It is difficult for us to find out the various parties who are best fitted to supply us with specimens such as we require. It is possible that your Journal may be read by many who may have choice cereals and home-made clothing. The space in our court which we can devote to this department is necessarily somewhat small, so that only articles of a better than average quality are acceptable. The Executive Committee for the Exhibition is ready to make arrangements with parties, in order to secure the class of articles referred to.

D. HONEYMAN,
Sec'y. of Committee.

Province Building, Feb. 2, 1861.

STATE OF THE CROPS IN KING'S COUNTY DURING THE PAST SEASON.

The annual Reports received from the various county and district societies are found to contain much information of a useful kind respecting the state of the crops during the past season. We give at present the information communicated by the societies in King's county, and hope to find room for the returns of all the other societies in next number of the journal.

The *Union Agricultural Society of East Cornwallis* reports:—

As regards the crops of this section of the township, we beg to say,—1st. That the wheat crop was almost a total failure, principally owing to the weevil or midge. Generally speaking, but little wheat is sown in this county. The farmers depending more upon the raising and fattening of stock and potatoes. Some farmers have succeeded to a small extent in growing winter wheat, and we learn that several intend giving it a more faithful trial.

Oats proved a fair crop, but in consequence of the drought, the quality is not so good as in former years.

Barley, Rye, and Buckwheat, are but little grown with us.

Some farmers are however trying the oats and barley together, and conclude they succeed better than when sown separate, and when ground, for feeding purposes, make much more valuable provender, either for horses or for fattening hogs.

Potatoes are the main crop with us, and the quantity is not only greater than last year, but the quality is much better. They are keeping well. The sort most cultivated is the Prince Albert, a variety raised from the ball in this county. They resemble the old black calico, but are much larger when grown under favorable circumstances.

This sort has almost surpassed the white calico, and saxon, owing to its being more prolific, and not quite so subject to disease.

The hay crop in this section was more than an average, and secured in excellent condition.

Turnips are but little grown, and generally speaking, are not as good as formerly in quality or quantity.

Indian corn but little cultivated in this section, but of superior quality. The crop in the western section of this county and the eastern part of Annapolis where it is much more largely cultivated, was severely injured by the frost before it ripened.

Peas and beans, &c., are cultivated more for domestic use than for exportation.

The *West Cornwallis Society* reports:

The hay crop in this district this season has proved a fair average crop.

Oats and barley were a small growth of straw, owing to the drought, but well filled.

Potatoes a good crop, and excellent quality.

Turnips are cultivated to some considerable extent, but were almost a failure owing to the dry weather.

Corn, beans, and peas, were a good crop.

The *King's County Society* (Lower Horton) reports:—

The system of rotation is not generally practiced in this district. The failure of the wheat crops by the weevil, and the high price of potatoes in the United States, have caused a large breadth of our land to be planted with potatoes, and some fields are planted for several years in succession; the soil is replenished with compost and marsh mud.

With respect to the crops of the past season, the hay was an average crop, but not so abundant as last year. A small breadth was sown with wheat, and that sown about the first of June was good; a few fields were sown earlier and entirely destroyed by the weevil. A large breadth

was sown with oats and the crop good. A large breadth was planted with potatoes and the yield abundant—the best we have had for some years; the tubers were of large size, superior in quality, and are keeping well in the cellars. A small breadth was planted with Indian corn and the crop good. The crop of turnips was not so good as in former years.—Other vegetables only middling. Rye and barley are but little sown here, but of what was sown the crops are good.—The fruit crop was light.

EXHIBITION OF THE EGERTON AGRICULTURAL SOCIETY, COUNTY OF PICTOU.

The Egerton Agricultural Society held its annual Exhibition at Fish Pools, East River, on Tuesday 18th October. The show is stated to have been large, and the samples good in every department. The animals brought forward on this occasion showed a marked contrast to the original stock of the district. A full list of the prizes and other details are contained in the society's annual report, from which the following particulars are extracted.

The articles exhibited were classified as follows:—

1st. Horses and Cattle.
2nd. Sheep and Swine.
3rd. Cloth and Carpets.
4th. Mats and Hosiery.
5th. Grain and Seeds.
6th. Butter, Cheese, Fruits and Roots,

In the first department eighty-five head were entered for competition; among the cattle in particular were some very superior, that had already carried the palm at the Antigonishe exhibition, and I believe are well able to compete with any section of the Province. It is only to be regretted that a larger sum could not be expended in the improvement of stock, a matter so essential to the well-being of the agricultural community and the public at large. Our society seems anxious to devote all their energies to this object, that by strenuous exertions on their own part, and under the fostering care of the Board of Agriculture, their anticipations will be realized.

In the second department thirty-five head were entered; in point of numbers, this was small, but in quality very superior. The sheep were principally a cross breed with native south-down, and other approved stock.

In the 3rd department twenty-four samples were entered, and a very great improvement is visible in these fabrics, which will eventually render us independent of foreign markets for these articles.

In the fourth department twenty-one samples are exhibited. This useful branch of domestic manufactures has grown up under the auspices of the society, and a praise-worthy emulation exists in the competition; much of the accumulated waste around the homestead in the shape of woollen rags, &c., are by the industrious hands of our females, converted into useful and ornamental work, which though they may lack the brilliancy of color, or the firmness of texture, are still worthy of encouragement as the products of domestic industry.

In the fifth department forty-two specimens were exhibited, all very superior, as will appear by reference to the weights: Wheat, 65½ lbs. per bush.; Oats, 42½ lbs.; Barley, 57 lbs.; Peas, 67½ lbs.; Hay-seed, 20 3-4 lbs.; Flax-seed, 20 3-4 lbs.; Buck-wheat, 26 3-4; Rye, 59½ lbs.—During the last few years many experiments have been made with imported seed, but as yet parties are not fully able to decide in favor of any particular sample. The soil as well as the season has an influence. Early sowing did well last season, but the wheat crop is subject to so many failures, attributable to so many causes, that it is difficult to meet all with any certainty of success, while mildew, blight, weevil and frost, are to be arrested. The scheme generally pursued is to sow at different periods, in order that some may escape the casualities incidental to the season.

In the sixth department seventy-four specimens were entered; in the article of Butter, there was a splendid lot, highly creditable to the different dairies producing it, and causing no little trouble to the judges to award prizes, when all were deserving and the recipients limited. The manufacture of this staple article has undergone a great change for the better for the few years past, and the samples exhibited on this occasion, surpassed any thing yet presented to the public in this section of the Province.

In Cheese the show was small, but of superior quality; few of our people here go into the manufacture of the article.—Of fruit the same may be said, but the samples shown would assure us that all that is wanted is a little more attention. As to Roots, particularly the Potatoes, suffice it to say, that we have every variety, from the "Irish Cup" to the "Jenny Lind," of ponderous dimensions and good quality. Carrots, Turnips, and Pumpkins, filled up the back ground, and made a very respectable display.

FRUIT GROWERS' ASSOCIATION.

Mr. Editor,—This Association held its annual meeting on the 25th inst., at the Temperance Hall, Wolfville. The meeting was not large, but one of great interest. Considerable time was devoted to an account of the reception of the fruit forwarded by this Association to the International Exhibition, held in London, in connection with the Royal Horticultural Society. The success which has already attended these efforts, amply demonstrates the beneficial results arising from entering the lists of honorable competition.

There is a marked improvement both in this county and Annapolis, in the quality and quantity of fruit grown. It was stated at the meeting that an orchard near Bridgetown, a little over an acre in extent, ten years old, last year yielded seventy barrels of number one apples. This shows that Annapolis is *naturally* adapted to the growing of fruits. King's county, however, is treading closely on the heels of Annapolis, as to the quality of the fruit grown, and will shortly overtake her sister in resepect of quantity.

It was resolved to hold the next Exhibition at Wolfville, in October next. I doubt not it will be worthy of the counties represented. H.

Wolfville, Jan. 1865.

The following notice of Nova Scotian and other fruits shown at the recent Exhibition of the London Horticultural Society is given in the *Cottage Gardener:*

"In this may be included a very extensive collection of Apples from Nova Scotia, which were also exhibited in competition with English growers.—Among the sorts exhibited were excellent examples of Gravenstein, Ribston Pippin, Gloria Mundi, Emperor Alexander, King of the Pippins, Blenheim Pippin, Æsopus and Flushing Spitzenberg, Red Baldwin, and other American sorts.—Altogether the collection was such as did credit to the colony, and served to show that for Apples at least the climate is well suited. Mr. Hardie, gardener to the Viceroy of Egypt, was likewise an exhibitor, his collection being of tropical character. It comprised Pomegranates of the largest size, two large bunches of dates, which would have presented a better appearance had they not met with an accident on the journey; Citrons, Lemons, Shaddocks, various kinds of Oranges, Custard Apples, fruit of the Papaw tree, Psidium pyriferum, and Medlars. A large collection of Belgian Pears was likewise added to the Show on Friday, as well as a collection of fruit from M. Chevet, of the Palais Royal, Paris, comprising large specimens of Uvedale's St. Germain Pears, &c. Raby Castle Currants, in excellent condition, were shown by Mr. Ford, and Red and White Dutch by Mr. Tivey and Mr. Curd; the latter also showing Medlars and a Broomham Hall melon. A good dish of Cuthill's Black Prince Strawberry was likewise exhibited, as well as some Quinces and Imperatrice Plums."

VETERINARY SURGERY.

In this country, where Veterinary Surgeons cannot readily be obtained to give advice regarding diseased and injured animals, it is necessary that the farmer should recognize the more ordinary diseases of the domestic animals under his charge, so as to be able to apply the necessary remedies. It is proposed, therefore, to give occasional articles on the various maladies and injuries to which our neat stock, horses, sheep, pigs, dogs, fowls, &c., are liable. On the present occasion, the following cases are selected from an able Report of the Edinburgh Veterinary College, published in the Highland Society's Journal, from the pen of the veteran Veterinarian, Professor Dick

BROKEN KNEES IN HORSES.

The great majority of these occurred in cab-horses, and can readily be accounted for as follows:—During the summer months the periodical influx of strangers visiting our city takes place; these commonly are most anxious to husband their time to the best advantage, and to see in as short a period as possible the varied romantic beauties, for the possession of which Edinburgh has been long and deservedly known. For this purpose a cab is engaged, and the poor horse, with a heavy load, not unfrequently amounting to as many as five grown-up people in addition to the driver, is driven about for a protracted period. The poor tired animal, when ascending the steep streets with which the city abounds, and in consequence of the slippery state of the causeway, occasioned in a great measure by the late wet season, slips and comes down upon its knees. The result of this is an abrasion or laceration of the skin, in many cases the cuts being so severe as to penetrate and lay open the joint. The treatment to be adopted in such cases depends in a great measure on the extent of the injury. In the first place, it is absolutely necessary to remove carefully any dirt which may be adhering to the part. This is best done by the application of a poultice. In case of simple abrasion or laceration, without penetration into the joint, all that is required is rest, with a dose of laxative or purgative medicine; the application of cold water or white lotion being the best local remedy. After the part has been properly cleansed, should synovia be found making its escape, then we conclude the wound has penetrated either into the joint or into the sheath of the large tendon which passes over the front of the knee; the injury then is of a more serious nature, and the treatment much more difficult. If the wound in the joint be small, with very little synovia escaping, the horse's head should be tied up, so as to prevent him walking about; but if very extensive, then I would have him placed in slings. In either case, cold-water cloths should be applied to the part. Should these not have the desired effect in stopping the flow of synovia, then recourse must be had to some styptic, of which I prefer new-slaked lime, flour (to which is added a sulphate of copper), or the tincture of myrrh and aloes. In some cases the actual cautery to the part will be found beneficial, at the same time giving the animal a dose of laxative medicine. Should febrile symptoms make their appearance, then I would advise the administration of saltpetre or other febrifuge.

COLIC OR GRIPES IN HORSES.

During the quarter ending 30th June, it appears that upwards of 60 cases, depending either directly or indirectly upon derangement of the digestive organs, have come under treatment in the Edinburgh Veterinary College, of which number not fewer than 41 were cases of colic or gripes. The great majority of these occurred amongst farm and draught horses. Colic is well known to be a disorder almost entirely occasioned by irregularity in feeding and accompanying mismanagement; and that it should be found to prevail to such an extent among our work horses indicates, in my opinion, a want of superintendence and attention, as well as neglect of duty, by no means creditable to those intrusted with their charge. That carelessness, or mismanagement, or both combined, is the chief cause of this disorder, is no longer a matter of doubt, but, on the contrary, is well known, and very generally acknowledged. Take, for instance, the case of a farm horse. How common an occurrence it is to find this class of horses attacked with colic on a Monday; in fact, how rarely do we find them attacked with it, excepting on a Monday; and why? The explanation is very simple. Sunday being a day of rest, the horse is confined to the stable during the whole day from Saturday night to Monday morning, a period of about 36 hours. The driver, partly through mistaken kindness and partly to save himself labour, keeps the rack full, and the animal's whole occupation is to empty it; and cramming into his stomach food beyond satiety, he greatly overfeeds himself. As a consequence, on Monday when put to work, his bowels, overburdened with a quantity of crude and half-digested condiment, have their functions arrested, the mucous membrane lining them becomes irritated, and the natural result is violent contractions of the muscular coat, producing the too well-known spasmodic pains. The natural process of digestion being thus arrested, the food undergoes a process of fermentation; gas is evolved, and we have distension. The question next arises, How is the increase of such cases during the spring and early summer months to be accounted for? It may be thus solved. During winter, cart and farm horses are fed chiefly on hay and straw, or dry chopped food; but these articles of food in the latter end of spring and beginning of summer becoming scarce, their use is substituted by succulent grasses. Now nothing tends so much to cause indigestion and consequent colic, as a sudden change of food to which the stomach has not been accustomed, more particularly when the change is from a dry one to one of a soft juicy nature; the latter being more palatable, the animal eats rapidly and ravenously, and thus overloads his stomach and bowels. Much has been said and written about the treatment of colic, and many plans of treatment have been recommended; but in my practice I have found nothing better than the administration of a draught composed of linseed oil, laudanum, and some stimulant. And as regards stimulants, I find that the best are those which are generally at hand, or most readily procured—viz., turpentine, whisky, or ether. I certainly prefer, and almost invariably use, turpentine, simply because it is the cheapest, and I find it answers all the purposes required. In addition to the draught, I always follow up its administration with repeated glysters of warm water and soap, and where there is evident constipation, a dose of aloes. I think it generally advisable to give a laxative, to prevent any tendency the opium might have to bring on constipation. In addition to medicine and glysters, hand-rubbing the abdomen will be advantageous, with slow walking-exercise at intervals.* In many cases, more especially those of simple flatulent colic, I have found that exercise was all that was necessary to relieve the animal. As a preventive of colic, I would strongly urge upon horse-owners the necessity of regular feeding, and during Sundays, or other rest days, a decrease instead of an increase in the quantity. I would also suggest, during these days, an hour or two's gentle exercise during the middle of the day, or the turning out of the animals for a short time into a convenient paddock or park, where there is little grass.

*In bad cases I have found great benefits resulting from the repeated application of hot water or stimulants to the surfaces.

REMARKS ON BREEDING DAIRY STOCK.

We condense from a recent number of the *Albany Country Gentleman*, the following suggestive article on the Breeding of Dairy Stock, which is worthy of attentive perusal by the farmers of Nova Scotia. It is from the pen of Mr. D. Lee, who had charge of the Agricultural Department at Washington some years ago:—

"Statements made at a meeting of dairymen in Rochester, held during the late State Fair, lead me to offer a few suggestions on the breeding of dairy stock for the consideration of your readers. It was stated on the occasion referred to, that there are small dairies in Herkimer county, or one at least, which yield an average of over 800 pounds of cheese to the cow in a year. If there was any way by which cheese could be adulterated, and its weight largely augmented, and yet pass for a good article, I should suspect something of the kind where cows are said to turn out over *eight hundred pounds* of cheese each in twelve consecutive months.—Assuming this statement to be near the truth what would be the gain if all cows in the United States should have their milking qualities developed in the same degree, and be able to transfer them to their offspring in all after time?

It was to bring the public mind to the calm and abiding consideration of suggestions of this character that led me to get the census returns of 1850, relating to neat cattle, so arranged as to show in one column all the "milch cows;" in another, all the "working oxen" and in a third, all the "other cattle." It may well be supposed that I desired every farmer or other person to state the number of milch cows he owned or kept for a purpose, and they have accommodated me by returning 6,685,094 in 1850, and 8,728,862 in 1860. The close study of these bovine mothers, whose inherent milk-forming powers have no rivals among all the mammalia,

is a matter of incalculable moment. No man is likely to breed dairy cows properly before he is able to appreciate in some degree their true value. To bring this antecedent knowledge home to every understanding I will notice some facts bearing on the subject.

1. A good cow can secrete forty pounds of rich milk a day for many days in succession.

2. She cannot form anything like *one pound* of flesh per day for any great length of time; for if so, she would weigh when six years old as many pounds as there are days in six years—2,190 pounds.

3. Two pounds of milk fairly dried, give as much dry matter as one pound of lean meat will yield when equally dried, showing that the milk-forming value of a good cow is about *twenty times* the value of her muscular and meat-forming system. Lean-meat (muscle) loses about 75 per cent. in weight by perfect drying, and milk 87½ per cent.

4. Elements valueless to-day as common air, water, and salts in the earth, may be in three days organized into grass; in two days more, the grass will appear as milk in large quantities in a first rate dairy; and in two days thereafter, this milk may appear in the brain and thoughts of man, and in the bone and muscle of his noblest industry. Does not the intelligent reader see in these few facts not only the marvelous powers of the vital principles in grass and in the cow, but also the handy-work of Infinite Wisdom?

It is practical knowledge of the highest value, to know how to transform water, air, and earth into grass and human flesh in the most direct, expeditious, safe, and profitable manner. Disseminate this knowledge universally, and the denizens of the federal metropolis will not have to pay as they now do, fifteen cents a quart for all the milk they purchase; nor will the citizens of Knoxville, Tenn., be compelled to give a dollar a pound for cheese, as they did in May last, when I left my family there and walked 200 miles over to Lexington, Ky. There is not a cheese-dairy in Tennessee, nor in a dozen other States that I might name, and I doubt if one can be found in Maryland. The demand for first rate dairy stock for breeding purposes, is soon to be beyond all precedent. The right way to meet these demands is one of the points which I aim to illustrate. How can the country make the most of the good dairy-blood which it now contains?

Certainly not by allowing it to be deteriorated in any herd whatever. But deterioration is unavoidable unless all can judge wisely of the intrinsic value of parental blood for extending and improving itself in future generations, in reference to the speciality of transforming vegetable substances into milk. Whatever of virtue and merit there may be in hereditary endowments, are elements in the physiological problem. If the birth of an animal, or its conception, were the beginning of the vital influences affecting its functions and organic structure, breeding would be one of the simplest of all arts. But all life comes from older life, and it is impossible to have really good off-spring from bad blood in parents. Now, as worthless blood greatly predominates, its gradual extinction, and the far greater diffusion of blood infinitely superior to it, are the honorable and profitable labour which American husbandmen have to perform. If I fail to aid them in the work indicated, they can hardly do less than accept the will for the deed."

ALDERNEY OR JERSEY CATTLE.

The cattle of the Channel Islands possess certain marked peculiarities which distinguish them from the breeds of Great Britain, and show their kinship to those of the Continent, particularly to the cattle of Normandy and northern France, near which coast the islands are situated. On the islands of Jersey and Alderney, there has been for many years little or no importation of cattle from the mainland, and as these islands are small, the breed has become very distinctly marked. The Guernsey cattle approach much more nearly those of Normandy, and though of larger size than the little graceful Alderneys, and greater milkers perhaps, they are not so highly esteemed, and have not been so purely or carefully bred. The Agricultural Society of Jersey and many private breeders, have of late years taken great pains to improve the stock. For this reason, and because all the most prized importations are from this island, the name "Jersey" is often applied to the breed which was originally recognized as the "Alderney."

The breeding is fast improving in all good points, retaining at the same time its high character for richness of milk. Its characteristics are a peculiarly deer-like head, neck and legs, a soft coat and pliable skin, often of a rich, almost golden flesh-colored tint. The prevailing colors are white, black and dun, inclining to grey and red, with "mealy muzzles," and the backs usually dusted with grey, in the dark colored animals. The muzzles are black, usually, and often the entire interior of the mouth is of the same color. Neither cows nor bulls can be considered well shaped, yet the cows are very pretty, though small. They are exceedingly gentle, and feed well at a tether, ingeniously extricating themselves if they get into trouble. Their value is as milkers, and not for the quantity but for the richness and color of the milk, cream, and butter. In this they are not excelled by any known breed of kine. The milk is as yellow as most cream, and the cream itself is proportionately high colored, the butter being fine, waxy and of a beautiful golden yellow. The quantity made from the milk of the Alderney, is generally admitted to be greater than can be made from cows of any other breed, and certainly the color, flavor and general appearance mark it as so superior to most, that it always brings a higher price in markets where it is known. The cows, when dry or spayed, and the steers, fatten with great ease, and make most excellent beef.—The bulls are apt to be fractious and ugly, and their dispositions contrast strongly with the truly feminine qualities of the cows.—*Condensed from American Agriculturist.*

TORMENTIL OR SHEPHERD'S KNOT.

The Tormentil or Shepherd's knot, is a well known plant in Britain, but has not hitherto been recorded as a native of the new world. It grows abundantly however, on the ridge of lofty hills lying between the Great Bras d'Or and St. Ann's Bay, in Cape Breton Island, where it was observed in August last.

This plant is one of the most powerful vegetable astringents; it has been long used to tan leather, and to furnish a red dye, and the farmers of Europe find it very efficacious in the dysenteries to which cattle are liable. Cows, goats, and sheep readily eat it. In sheep-diseases, especially scouring, it is regarded as an effectual remedy, and the sheep themselves seek it out in the pastures to which they have access. Although a rare plant in Nova Scotia, being probably confined to the Bras d'Or locality, it is obviously suitable to our climate, and may be easily introduced to sheep pastures throughout the Province. Johnston observes: "The Cheviot herds call the Tormentil the Ewe Daisy. In the Lammermoors the root is called the Shepherd's Knot, and is used when boiled in milk, for the cure of diarrhœa. The plant itself, under the name flesh-and-blood, is a popular astringent medicine for children. Blood root is another name; both are obviously derived from the disease it is administered to cure, viz., the dysentery. It is also given to sheep to cure them of the braxy, and of a singular disease called the loupin-ill, from one of its most obvious symptoms; for when a person goes up to a sheep affected with it, the animal leaps into the air as if suddenly surprised, and falls down exhausted and apparently dead."

HOW TO MAKE UP A SPRING HOT BED.

For raising early Lettuces, Cucumbers, Melons, and Tomatoes, and especially for preparing young plants of Cabbages for garden or field culture, a hot bed is absolutely necessary. We therefore furnish, at this suitable season, the following plain instructions for making a hot bed frame and preparing the manure, which we find in the Almanack and Garden Manual of Messrs. Buist of Philadelphia:

Hot Bed Frame.—In order to secure a supply of early vegetables, a hot-bed frame is indispensable. It can be constructed by any handy man, at a very small cost; it consists of a wooden frame, generally six feet wide, and from six to eighteen feet long, according to the supply of early vegetables required; one side to be at least six inches higher than the other,—the frame to be subdivided by cross-bars, and each division covered by a glazed sash, the sides and ends should be joined by hooks and staples, to admit of its being taken apart, and stored away when not required. After completion, place it on the manure bed, prepared in the following manner. The frame should face the south, or south-east; fill in about ten inches of rich pulverized soil, and allow it to stand a few days, giving it air by slightly raising the sashes, so that the fiery vapour, or steam, may escape. The seeds of Cabbage, Cauliflower, Egg Plant, Peppers, Tomatoes, and many other varieties may be sown, and the plants planted out as soon as the frosty weather is over.

PREPARING MANURE FOR HOT BEDS.—Fresh stable manure only, not exceeding six weeks old, is suitable for the purpose. Turn it over into a compact heap, protected from heavy rains or snow; allow it to remain so for about eight days, when it should be made up into the requisite form to suit the frame. If there is a scarcity of manure, use with it one-half fresh tanner's bark. Egg Plant seed requires a strong heat to make it vegetate; for such, the hot material will require to be two feet thick. Where the ground is quite dry, a very good method is to dig a space about eighteen inches deep, and put the manure therein—tramp it firmly and evenly,—place thereon the frame and sash—put it in the rich earth, and, in about four days, sow the seed, having previously stirred the earth freely, to destroy any seeds or weeds therein.

NEW METHOD OF GROWING CELERY.

In Nova Scotia this agreeable and healthy vegetable is too much confined to the tables of the wealthy. There is no reason why every farmer should not have his annual supply of celery to grace his winter meals, and the same may be said of asparagus and other early spring vegetables, which ought to be grown upon every farm. The following method of growing celery is recommended in the New York Horticulturist as a very successful one. It should suit equally well *with us, only* it may be necessary to take up the crop in the fall, and store it away in a frost proof cellar instead of leaving it in the ground as recommended:—

"To prepare a bed, we measure off, say six to twelve feet wide, and run this width as long as convenient: then throw out on each side the soil to the depth of six to nine inches, and fill up the trench nearly to its surface with thoroughly decomposed manure, and start at one end and thoroughly incorporate soil and manure together; plant out the plants say nine inches by twelve on this surface, and thoroughly soak the whole with water; if the weather is very hot, shade for a few days.

"Form an embankment twelve inches high all around this trench, and keep it constantly saturated with water. If manure water, so much the better. Have not got it? Then put guano in the water and make it; for depend upon it, 'Good things come out of good conditions.' As the plants grow, keep them loosely tied up with bass matting, and rub off all the young suckers that grow out at the base of the leaves. The very small leaves, or stems at the bottom of the plant, should be taken off also; this facilitates the removal, and enables you to watch the growth of suckers, which if left on would waste the substance and deteriorate the growth. You will remember the *trench must not be allowed to become dry.* It should be always like what the little boys call '*puddle*'

If proper attention is paid to this point, and also to planting it out early, celery can be grown to a very large size before the month of November. It should not be earthed up at all till about three weeks before it is required for use. Four weeks' time at the utmost, will blanch it as white as a lily. In order to blanch it, of course the soil from the sides is thrown between the plants and nearly up to the tops of the leaves. So soon as the leaves fall from the trees, we collect them and cover these beds *entirely all over*, about twelve or eighteen inches thick, placing over them a few corn stalks to prevent the wind blowing the leaves away. From these beds you can dig *sweet, crisp* celery all the winter, not a particle of frost near it; and in April and May we often see the white stems pushing up through the leaves far better in every respect than any celery you can get in the fall. We have seen single sticks of celery grown this way, after being washed and dressed for table, weigh EIGHT POUNDS.'

CULTIVATION OF THE STRAWBERRY.

To secure the best results in the cultivation of this plant, a thorough preparation of the soil is necessary. I often hear people say the strawberry will not grow on their ground, and invariably find the difficulty to be the hard packing of the soil. In soils of an adhesive nature, a mechanical change must be made by adding manure, composed of vegetable substance. Concentrated fertilizers have little or no value for this purpose. A well rotted compost of muck and barn-yard manure will have the desired effect, and whatever can be done to make the soil lighter is especially indicated for the strawberry. Nearly all soils will be much improved by deep working. Trenching with the spade is the most effectual, but for a large area, the subsoil plow will do the work cheaper. The ground should be plowed twice in opposite directions, the subsoil plow following the common plow in each furrow both ways. The deep stirring of the soil will admit a supply of air and moisture so necessary for the growth of this plant.

It is of but temporary benefit to stir a strong soil, unless something is put into it to keep it open. I have met with good success in the use of leaf mould, and can recommend a compost of equal parts of leaf mould, swamp muck and barn-yard manure—the compost to be applied the fall before planting, and plowed in. I have grown at the rate of 200 bushels per acre of Wilson's Seedling, by using nothing but a heavy dressing of leaf mould and wood ashes.

In regard to system of cultivation, and choice varieties, doctors differ. I think the Wilson's Albany the most profitable market variety yet known. The Triomphe de Gand is a fine fruit, but produces from one-third to one-half less fruit than the Wilson, and will prove a profitable market variety where they will bring a correspondingly higher price. The Jenny Lind has been recommended by some for an early variety, but with me has not been enough earlier to make it any object. Fruit good and fair size, but will not produce half as much as the Wilson.

If the hill system is desired, the rows may be 2½ feet apart, and the plants set out 20 inches from each other in the rows, allowing each plant to strike a runner between, leaving the plants ten inches asunder in the rows. If the horse hoe or cultivator is used, a greater distance between the rows will be required. My experience is that these implements disturb the roots of the plants too much, and that the hand hoe should be substituted in their place.

The Triomphe will hardly be successful under any other than the hill system; they stand the drought well, and with me are quite hardy. The Wilson will exhaust themselves in one season whatever system is adopted, which is no objection with me, as I prefer to start a new plantation every year. I have planted the Wilson in rows 5 feet apart, and set the plants 2 feet asunder in the rows, allowing the runners to take possession of the ground, except an alley between the rows. Where the soil is heavily manured and deeply worked, a large crop may be obtained. Mulching should be done in the fall, and may remain on till the crop is gathered. Straw is the best protection, but must be thrashed clean. I have seen crops nearly ruined from scattering seed. Declare war against all weeds, work the soil deep and manure well, and success is certain.—I. BASSET, *in Cultivator.*

CULTIVATION OF YOUNG ORCHARDS.

We have noticed a very decided difference, plain to be seen by the most casual observer, between the orchards that have been cultivated and those that are seeded down to grass. Let any one travel through Dodge county, Wisconsin, with an unprejudiced mind, and he cannot fail to become convinced that, at least in this part of the Northwest, it is necessary to cultivate young orchards to get a thrifty vigorous growth. Here is a *farmer whose* garden is beside his orchard. Orchard in grass, trees not over half the size of those in the garden. Trees, some a dozen years old, and land kept highly manured in both cases. Trees in the garden bear liberally, while those in the orchard give their owner very little fruit. Those growing in the grass looking sickly and half dead, while those in the garden look healthy and thrifty. If you pass westward, to his next neighbour, you find an exactly parrallel case. There are two orchards, belonging to two neighbours, not eighty rods apart. One is thrifty and vigorous, giving liberal crops of fruit; the other looks half starved and stunted, and many trees are dying. The former has been kept cultivated—the latter is seeded to grass. We believe a young orchard needs cultivation just as much as a field of corn.—*F., in Cultivator.*

GLEANINGS.

RIVER FISHERIES AND GAME PROTECTION ASSOCIATION.—At a public meeting held in the Province Building on Monday evening, the old Society for the preservation of game was revivied and remodelled under the title of "The River Fisheries and Game Protection Association." The following gentlemen were elected officers of the Society:—President, Capt. Chearnley, Vice Presidents, Capt Hardy, R.A., and Jas. Thomson, Esq.; Treasurer, W. Silver, Esq.; Secretary, J.H.Duvar, Esq. Council—Messrs. W.M.Harrington, George Piers, Colonel Clifford, R.A., Capt. Clarke, A D C.; Messrs. Finlay, Blaiklock, Downs, Corbellis, 17th Regt., and Jessop, R. A.—*Colonist.*

SAWDUST AS A COLLECTOR OF AMMONIA.—Sawdust, according to the *Scottish Gardener*, is one of the very best absorbents for liquid manure. Mixed with diluted sulphuric acid, it is one of the best materials for collecting the ammonia which is given off in stables. The following experiments have been put on record:—A shallow basin, in which sawdust moistened with diluted sulphuric acid was spread, was hung up in a stable, and in the course of three weeks all the acid in the sawdust was completely neutralized by the ammonia in the air of the stable, and a considerable quantity of sulphate of ammonia was formed in this manner. For this reason sawdust mixed with sulphuric acid is recommended as a means of keeping stables sweet and wholesome. The acid should be diluted with forty-five times its bulk of water before it is applied to the sawdust. Just enough should be applied to make the sawdust feel damp. On account of its porosity, sawdust retains the acid very perfectly, and presents a large surface for the absorption of the ammonia.

Those of our readers who are located in the neighborhood of saw mills may profit much by the hints of the foregoing paragraph. Plaster may be used in place of sawdust, as a fixer of ammonia.

LET US CROSS OUR DOWNS WITH COTSWOLDS.—Mr, Disraeli, at a farmers' dinner at Aylesbury, with his usual versatility, quite caught the agricultural and bucolic tone. He referred to his prophecy, delivered at the outbreak of the American civil war, that war would be a long one, and we could not even now hope for a speedy return of peace. From these speculations in high politics he drew the very practical conclusion that he would cross his flock of Downs with Cotswolds. There was no hope of American cotton; mixed woollen stuffs would be in request; the price of wool would rise; therefore let us not be wedded to our shortwooled Downs, but wed them to the longwooled Cotswolds.

NEWTOWN PIPPIN APPLE.—I wish to say something in regard to the Newtown Pippin apple, because some people are forever crying that this and that variety of fruit is "run out." Each class of fruit requires an appropriate soil, comprising therein the constituents naturally adapted to its developement; and there are even varieties of the same species of fruit which require a variation in soil. The Newtown Pippin delights in high culture with manure and lime, and it is the neglect in culture or the lack of the ingredients that renders the tree deficient in vigor and unproductive. I am well satisfied that this variety can be cultivated with as much success and that it will grow with as much vigor, as it ever did, provided it receives the proper attention. It is, however, the natural character of both the varieties to grow slower than many other kinds, and consequently to attain to less size in an orchard than most others of the same age. The roughness of the bark of the green variety, which is the kind mostly cultivated, gives to the trees an unthrifty appearance, when, in point of fact, this is but a natural characteristic. I have felt impelled to make these remarks, after inspecting an orchard planted in 1846–47. This apple has some peculiarities which I have not seen noticed. One is that the seeds do not come from the core *clean*, but have more or less particles of the core adhering to them. The quality of the fruit varies very materially according to the soil, climate and treatment. When in its highest state, it has a thin, *smooth* and polished skin, with tender flesh, others, grown under less favorable circumstances, have a rough skin, the texture of the flesh more tough and breaking.—*W. R. Prince, in "Horticulturist."*

ONION CULTURE.—The health of the American armies in the field has been greatly improved since rations of this vegetable have been supplied. The demand has caused the price to advance from about one dollar to three dollars per bushel, and those who have gone into onion culture are realizing large profits; we hear of one farmer in Iowa having made over $10,000 from a single crop. This success, like the Oil enterprise of the present day, is engaging the attention of our agriculturists, and, judging from the quantity of seed already sold for planting the coming Spring, we think the crop, if the season proves favorable, will be double of that of any previous year. To grow this vegetable successfully, it must be borne in mind that the soil cannot be too rich, and however good it may be, it requires more or less manure for every crop; it is a plant with a number of roots, that spread to a great extent, absorbing nourishment from every particle of the soil. In regard to rotation of crops, the Onion is an anomalous case, for the same ground has been known to produce heavy crops yearly for over half a century. The system pursued is to manure the ground heavily, with the best of dung, dig or plow the ground early in the Spring, and level it with the rake or harrow. In cool climates, seeds sown early in Spring will produce full grown Onions the same year.—*Buist's Garden Manual.*

DOGS *versus* SHEEP.—The following paragraph from the *Newfoundlander* newspaper points out the suitability of Newfoundland for sheep-raising, and the difficulties of entering upon this profitable branch of farming in consequence of the great numbers of dogs that infest the place:—

"There are confessedly few countries naturally better adapted than Newfoundland to the rearing of sheep, yet, to our shame it must be said, that nowhere is this valuable occupation so neglected as with us. Countless numbers of our people are now suffering from want which this resource would have averted, had it been prudently turned to profit. We need hardly speak of the value of sheep as an article of food or of sale to the rearer, and in addition to it would be that of the wool, always a marketable commodity too, and one which would give good and sufficient employment to women and girls of all ages in converting it into the several articles of clothing which we so much need in this climate. Matters so plainly intelligible as these one would say, can surely need no appeal to commend them to the practical attention of our people; and when it is further considered that the facilities for inexpensive sheep-rearing are at these same people's door, and that their dire and constant complaint is the want of remunerative employment, the anomaly of their condition in this respect is one which admits of no rational explanation. It is too bad to be obliged to assign the reason, or rather the senseless excuse, invariably given when the advantages they forfeit are pointed out to them; but it must be told that they prefer to tolerate the existence of a breed of dogs which are in some cases wholly useless, and which live by the destruction of sheep and goats, and by every other kind of depradation within their range. These brutes, so far from being of use to the poor man, are a positive burthen in what they consume of his substance, and a still greater burthen in what they prevent him from adding to his store."

THE MANUFACTURE OF PERFUMES.—Amongst the popular lectures which have been lately delivered in the Conservatory at the London Horticultural Society, Mr. Septimus Piesse has given one on "Perfumes, and the Method of obtaining the Odours." The lecturer pointed out that, contrary to general belief, nearly all the perfumes derived from flowers are not made by distillation, but by the process of *enfleurage*, or inflowering, and by maceration or infusion. The odours of flowers do not, as a general rule, exist in them as a store or in a gland, but they are developed as an exhalation. While the flower breathes, it yields fragrance; but kill the flower, and fragrance ceases. It has not been ascertained when the discovery was made of condensing, as it were, the breath of the flower during life; what we know now is, that if a living flower be placed near to butter, grease, animal fat or oil, these bodies absorb the odour given off by the blossom, and in turn themselves become fragrant. If we spread fresh unsalted butter upon the inside of two dessert plates, and then fill one of the plates with gathered fragrant blossoms of clematis, covering them over with the second greased plate, we shall find that after twenty-four hours the grease has become fragrant. The blossoms, though separated from the parent stem, do not die for some time, but live and exhale odour, which is absorbed by the fat. To remove the odour from the fat, the fat must be scraped off the plates and put into alcohol; the odour then leaves the grease and enters into the spirit which thus becomes "scent," and the grease again becomes colourless.—*Builder.*

DOMESTIC RECEIPTS.

(*Selected from various sources.*)

FAMILY STEAK PIE.—Take and cut two pounds of beef in slices, two pounds of potatoes, a quarter of a pound of onions; season with three tea-spoonfuls of salt, one of pepper; mix well together; put the meat and potatoes into the pie-dish in alternate layers; add a pint of water, cover over as above, and bake for one hour and a half.

VEAL PIE.—Delicate veal and ham pies can be made like the above, rolling up the veal and a little ham or bacon together, and a little stuffing, if handy. Proceed as for family steak pies. Pork pies may be made in the same way.

CURD MILK PUDDING.—Put in a basin three eggs, a little grated lemon-peel, three ounces of currants, one pint of curds, and one pound of bread crumbs; boil in a cloth half an hour; turn out and serve.

PLAIN RICE PUDDING.—Wash a quarter of a pound of rice, put it into a stew-pan with a pint and a half of milk, three ounces of butter, three ounces of sugar, lemon-peel; simmer till the rice is tender, add two eggs, previously well beaten, mix quick, put in pie-dish; bake half an hour, *or till set.*

SUET PUDDING.—Put into a basin half a pound of chopped suet, a pound of flour two eggs, a teaspoonful of salt, quarter of pepper, nearly half a pint of water. beat all well together: put into a cloth: boil one hour and a half.

OX-TAIL SOUP.—Cut them at the joints, adding one pint of water for two small tails, simmer for three hours, add one carrot, 2 turnips, one table-spoonful of flour.

OX-CHEEK SOUP.—Boil half a large cheek for twenty minutes in two quarts of water, to set it: take it out, cut it into thin slices, boil three hours.

LARGE RABBITS.—Put into a one gallon pan a rabbit, cut into about eighteen or twenty pieces; peel eight onions, twenty potatoes cut into thin slices; also a half a pound of bacon cut into dice, season with salt and pepper; then place the meat and potatoes in layers, add nearly a pint of water; cover over and bake two hours.

A CHEAP SOUP.—Two pounds of lean beef, six onions, two carrots, one large turnip, one cup of Scotch barley; this quantity will serve six persons.

POTATO SOUP FOR SIX PERSONS.—Peal and wash four pounds of potatoes, when boiled strain and mash them, add two large onions, previously boiled, to the washed potatoes, then put a quarter of a pound of butter, or good beef dripping, pepper and salt, pour over the whole as much boiling water as will be necessary for the family dinner, give it one boil up, and it is done; this soup makes a good meal without any meat.

COW HEELS.—Boil them four hours, or till quite tender, and serve them up with melted butter, and mustard and vinegar. Or cut them in four parts, and dip them in butter and fry them brown; fry onions, if you like them, and serve round; send melted butter, or gravy, in a boat.

TRIPE may be stewed with milk or water, or both, and onions, till tender; and served in a tureen with melted butter and mustard for sauce; boil it about half an hour. Or fry in it small slices dipped in butter. Or stew the thin part, cut into bits, in gravy; thicken with flour and butter, and a little ketchup.

PEAS SOUP.—Take a fresh rump bone broken to pieces, or a coarse piece of beef, and a pint and a half of split peas; set it on the fire, let it boil, and skim it well; then put in three onions sliced, two turnips, one carrot, and three heads of celery, cut small, with a sprig of sweet herbs; boil it slowly four or five hours; season with pepper and salt to your taste; put it in a tureen, send it to table with slices of bread toasted brown, and cut into bits about an inch square, on a plate, and some dried mint rubbed very fine.

GOOD PLAIN GINGER BREAD.—Mix three pounds of flour with four ounces of moist sugar, and half an ounce of pounded ginger; warm one pound and a quarter of treacle, and melt half a pound of fresh butter in it; put it to the flour, and make it into a paste; make it into nuts or cakes, or bake it in one cake.

POTATO ROLLS.—Boil three pounds of potatoes; bruise and work them with two ounces of butter, a little salt, and as much milk as will make them pass through a cullender. Take half a pint of thick yeast, and half a pint of warm water, and mix it with the potatoes: then pour the whole upon five pounds of flour; knead it well; if not of a proper consistence, put a little more milk and water; let it stand before the fire an hour to rise; work it well and make it into rolls.—Bake them about half an hour in an oven that is proper for white bread; they eat best when toasted and buttered.

SAND CAKE.—Take one pound of butter and beat it to a cream, yolks of eight eggs, mix one by one in the butter, one pound of fine white sugar, grate the rind of a lemon, one pound of sifted flour, stirred in one way only, mix all well together for half an hour; then take the white of the eggs and beat them to a stiff froth, mix it in gradually; grease the form or pan and grate cracker around it, put the batter in and bake it in a moderate oven; when done, put sugar or icing over it.

JUMBLES.—Take one pound of butter and work it to a cream, then take a pound of sifted flour, one pound of fine sugar, and four eggs well beaten, and mix all together. drop them with a fork on a greased tin: you can add a little more flour to the dough and roll them out with sugar, instead of flour.

LITERARY NOTICE.

First Lessons in Scientific Agriculture for Schools and Private Instruction. By J. W. Dawson, L. L. D., F. R. S., Principal of McGill University.

Principal Dawson has done good service in the cause of agricultural progress in British America, in preparing this excellent Manual. It is a carefully arranged work of 200 pages, embracing much useful information, both of a scientific and practical kind, and we know no more pleasant or profitable exercise that a farmer can undertake than to go over its various lessons in their systematic order, with his boys during the winter evenings. He will benefit by the teaching and they will benefit by the instruction. Why is it that so many of our young men become disgusted with farming, and take the earliest opportunity to leave the farm and all its prospects of peaceful industry which their fathers have been toiling for? Simply because *they have acquired the* manual art of agriculture, and have become acquainted with all its drudgery, without being taught its science and its philosophy, or having any opportunity of acquainting themselves with its rich and varied literature, or otherwise acquiring an interest in the subject. A farmer ought to be a chemist, a naturalist, a physiologist, and withal a man of letters: farmers are rapidly becoming so now in England and Scotland; too many imagine that they merely require a pair of hands and the capacity to drive a hard bargain. Dr. Dawson's work has been judiciously selected for use in our schools, and much benefit is to be anticipated wherever it is introduced.

ANSWER TO CORRESPONDENTS.

J. M.—The Board has made no arrangements for supplying clover seed to Societies. J. M. further enquires for 10 bushels of the best improved Spring Wheat, and two one-year old Bulls, (breed not stated. Ayshires or Devons would probably answer best.) Any farmer having such to dispose of will please send description and prices to the Secretary of the Board of Agriculture.

R. A. J. asks for the address of some person in Annapolis county who has for disposal breeding cattle suitable for an Agricultural Society. We shall feel obliged for the information desired.

After the abstract of Reports of Societies which appears in the present number was in type, Reports were received from the following Societies, which contain materials that will be used in next number:—Shubenacadie Agricultural Society, Newport Agricultural Society, North Shore Agricultural Society, Co. Victoria, Lower Musquodoboit Agricultural Society.

Communicotions for this Journal are to be addressed to the Secretary of the Board of Agriculture, Prof. Lawson, Dalhousie College, Halifax.

Letters containing lists of Subscribers and subscriptions are to be addressed to Messrs. A, & W, Mackinlay, Granville street, Halifax.

The Journal of Agriculture

—is published by—

A. & W. MACKINLAY,

No. 10, Granville Street,

HALIFAX, NOVA SCOTIA.

TERMS OF SUBSCRIPTION:—

Fifty Cents per annum—payable in advance.

A limited number of Advertisements in connection with Agriculture will be inserted on application to the Publishers.