ANNUAL REPORT
OF THE
SAINT JOHN COUNTY AGRICULTURAL SOCIETY.

The Directors of the Saint John County Agricultural Society beg to submit the following Report to the annual meeting. During the past year, monthly meetings have been regularly held, and have been well attended; the consequence of which has been, that much discussion has taken place, and considerable efforts have been made to advance the interests of agriculture. Most of the remarks which will close this Report are the fruit of such discussions. The action taken by the Directors will be narrated in detail.

Impressed with the importance of obtaining and diffusing sound knowledge on the subject which they have in hand, the following publications have been received and circulated,—"Johnston's Lectures on Agriculture," "Stephen's Book of the Farm," "The Journals of the Royal Agricultural Societies of England and Scotland," "The London Gardeners' Chronicle," "The North British Agriculturist," and "The Albany Cultivator."

Having learned, early in the year, that Professor Johnston, of the University of Durham, and Lecturer to the Agricultural Society of Scotland, had been invited to visit the United States, the Directors brought the matter under the notice of the Government, and petitioned His Excellency to invite the Professor to visit this Province on his route, and give his opinion on its agricultural capabilities. This request was complied with. The Professor is now with us, and is making himself acquainted with the soil and produce of each section of the Province. It is to be hoped that his report will be carefully studied, and his directions followed by every farmer. As to his ability to teach, it need only be said, that his opinions are valued wherever scientific agriculture is known; and that the best farmers of Britain and the United States have been glad to come before him in the attitude of learners.

For the purpose of inducing the farmers of this County to test the utility of *thorough-draining*, the Directors offered premiums to such as would undertake the experiment, and report on the results. A copy of the conditions and directions will be found in the appendix. As the Directors have reason to hope, that the Commissioners of the Provincial Penitentiary will import a tile machine to manufacture draining pipes during the next season, they will allow another year to intending competitors. For their information, it may be remarked, that in England tile draining is done at less than half the cost of stone draining, even when stone is on the land, and is more effective. The former costs, in England, from £3 to £6 per acre, with drains 3 to 5 feet deep, and 20 to 40 feet apart: the latter from £10 to £30. The bottom of the drain is cut exactly to the width of a two or three inch pipe. After the pipes are securely fitted, the clay is packed closely back upon them, without any stone, brush, or other material; and however singular it may seem, experience has proved, that by this simple and cheap drainage, not only are springs and wet lands dried, but that even the surface water finds its way to the conduits, rendering the land more permeable, easier worked, and earlier ready for the seed than before, and the crops healthier, more abundant, and fully three weeks sooner ready for the sickle.

The Directors caused a large quantity of turnip, carrot, beet, and parsnip seed to be imported last season, together with wheat, barley, and oats, all of which were readily sold, without loss. They would recommend that a still larger quantity be imported, as many this season were unable to obtain a supply, and the necessity for an increased cultivation of root crops is becoming better understood.

The Directors offered premiums for the best fields of turnips, carrots, mangold wurtzel and parsnips, "quantity, quality, and cultivation considered," also for the largest quantities of wheat, barley, oats, buckwheat and potatoes raised. The judges awarded these premiums as follow:—First premium for turnips, to Thomas Davidson, second to Dr. Peters, third to F. J. Ayers; first premium for carrots, to Dr. Peters, second to Thomas Davidson; first premium for oats and buckwheat, to Thomas Dewar; second premium for buckwheat, to Robert Bowes; third premium for potatoes, to Thomas Dewar; first premium for essay on making manure, to Robert Bowes.

The reports of the competitors will be found in the appendix. The annual fair and cattle show was held on 27th September. The list of successful competitors has been already published.

The fair, from the day being wet, was not well attended. His Excellency the Lieutenant-Governor was pleased to honor the Show with his presence, and minutely examined the cattle and articles exhibited. Four samples of wheat were shown; one weighed 64 lbs. and two over 60. The oats weighed 46, 44 and 42lbs. per bushel. The turnips, carrots, mangold wurtzel, and potatoes, were very superior, and pronounced by the judges as good as could be raised in any country. There is but little butter and no cheese made in this county. In the appendix will be found directions for making both in the most approved methods.

For the purpose of encouraging the production of these articles in the county, the Directors would recommend that large premiums be offered for the largest quantities of good quality made in any one dairy.

The Directors have to report in relation to the crops in the county for the past season, that hay, except on the marshes, was very light, probably not half an average, very little wheat was grown, but, where tried, yielded abundantly without rust or weevil. Barley has not been successfully cultivated, probably because the land has not been put in a proper condition for it, that crop requiring a very fine tilth. Oats have been a good crop. Buckwheat has been extensively grown, and yielded abundantly. Potatoes kept quite free from the disease until fully grown and nearly ripe, and, in general, were not affected at all. In some sections, however, especially in the vicinity of this city, the disease made its appearance with all its former virulence. After blackening the tops, it struck down to the roots, and in different fields from a quarter to a half were lost. It appears, therefore, that the disease has not yet taken its departure, and that the potato ought not to be depended on as the only root crop.

Carrots and turnips have been extensively cultivated, and notwithstanding the extreme drought, are generally a good crop. Mangold Wurtzel and parsnips, although better adapted for cows and pigs, and quite as easily raised as the others, have not been much tried. The English horse bean or Heligoland bean has been grown for several years on one or two farms, and when planted early have ripened and yielded well. The white bean and field pea have scarcely been tried, which is to be regretted, as they are a sure and profitable crop, and excellent alike for the table and as food for cattle.

The Directors appointed Committees to organise branch Societies in the different parishes of the county; one only has been formed at Loch Lomond, which has been conducted with much spirit; a report of its transactions is appended.

An oat mill, grist mill, and carding mill, has been established at Golden Grove, to which the Directors have awarded a premium of £25, as advertised.

An application was made to this Society, by persons interested in the coloured population at Loch Lomond, to assist in stimulating these people to help themselves. Seeds were distributed amongst them, from funds furnished by a gentleman in England, through Mr. Duval of the Normal School here, and premiums offered, with a good result. Almost every family have grown more or less vegetables where none were grown before, to the extent of from 10 to 50 bushels to each, and have found out that they *can* do something. Their crops were surprising, considering that their only implement is a short hoe, and that they use little or no manure. The Directors would recommend that a small sum be expended in clearing up and ploughing a field near the school house, where the children may be trained to habits of industry, and be shewn the effects of proper cultivation. The present teacher, if properly supported, is likely to effect much improvement amongst them. Their land being very fertile, and their wants few, they require only to be taught industry and self-dependence to prevent them from continuing a burthen on the community.

The Directors have as yet been unsuccessful in their endeavours to introduce a bone mill into the county. This is to be regretted, as, besides those wasted, large quantities of bones are annually shipped off to be returned to us in the shape of cabbages and flour. Perhaps the Legislature may be induced to import one, and have it worked in the Provincial Penitentiary.

The Directors have had under their notice the way in which grain and vegetables are measured in this Province, and have concluded that the present mode is objectionable, and causes much loss and inconvenience, and would recommend that a petition be presented to the Legislature, praying that a law be passed to cause all grain and vegetables to be sold by weight. Other societies are requested to examine into the matter, and, if they concur in the opinion, to co-operate with this Society in bringing the subject before the Legislature.

The Directors have pleasure in acknowledging the honour conferred on their report of last year, by Messrs. H. Chubb & Co., and the Members of the Fredericton Athenæum, by its publication in the New Brunswick Almanac, by which it was introduced into localities rarely visited by book or newspaper, and they trust that these gentlemen will be repaid by the increasing interest which is being manifested throughout the Province in Agricultural improvement.

In accordance with the Report of last year, the Directors petitioned the Legislature to appoint a Central Board or Provincial Society, and to introduce agricultural education, but nothing was done. This arose chiefly from the opposition of the farmers in the Legislature, they being decidedly opposed to any additional expenditure for the improvement of agriculture. Three fourths of them actually voted against the invitation to Professor Johnston.

The Directors recommend that renewed efforts be made to induce Government to furnish means of education suitable to young men designed for farmers, by the formation of one or more large schools, with model farms attached, and by the science of agriculture being taught in all the common schools. Seminaries are maintained at the public expense for the education of those intended for other professions; and as farming is second to none in importance, it is neither fair to the farmers nor for the general good that this occupation should be deprived of those benefits which science and knowledge can afford.

The Treasurer's account is herewith submitted, shewing a balance on hand of £40 18s 2d. The year's subscriptions and the annual grant from Government added thereto, will make the amount available, for next year's operations, about one hundred and seventy-five pounds.

The following general remarks are, as before mentioned, the results of, or suggested by, the discussions at the monthly meetings of the Society.

The state of agriculture and those depending on it in this Province, are admitted by all to be in great need of improvement. There is little or no farming capital: an exhausting mode of cultivation prevails by which that little is becoming less. There is no surplus produce on which to feed those who would manufacture for us; nay, farmers do not raise even enough for themselves; and it is the reply to those who would wish to introduce draining, deep ploughing, a proper rotation of crops, and plentiful manuring, whereby the crops would be more than doubled. Oh, but there are no markets!—we have no capital!—we cannot afford to pay for labour!—we cannot sell at a remunerating price what we at present produce!—and why urge us on to what would be our ruin?

Were we seeking popularity, or desirous of gaining the favour of those to whom we address ourselves, we should probably, like the other quacks of the day, say to them that their present state is caused by an unpropitious climate, or a steril soil, by errors of omission or commission on the part of Government, by a want of capital or a want of markets, and would urge them to seek for protection or free trade, toryism or responsible government, reciprocity, independence or annexation, as a cure for all their evils.

But we have other ends in view, we wish to raise the agriculturists of our country to the condition which belongs to them, to that of intelligent, prosperous, high-principled men, who know their rights and their duties, and will fearlessly assert the one and faithfully perform the other, and must, therefore, say, that from all that we have seen or can judge, we are sincerely of opinion, that general prosperity can alone be obtained by a general increase of individual intelligence, energy, enterprise, industry, and public and private economy, and in no other way, and by no other means whatever, and each one who desires to bring this about must begin at *home*, must *do* the duties which lie nearest to him, must seek out and endeavour to fulfil the purposes for which God has placed him in this world, and resolve, that the blame of being one of a spiritless, indolent, extravagant, and poverty-stricken people, shall not lie at his door. Let such a spirit but be diffused amongst us, and with our fertile soil, healthy climate, and vast natural resources, we are prepared to run a race with the best nation on the face of the earth.

But increased production will create markets: and in this way—as soon as a surplus of provisions is afforded, the farmer, who was before his own blacksmith, shoemaker, weaver, tailor, doctor and minister, finding out the advantages of a division of labour, exchanges his for the labour of others. Centres of those thus employed, or towns and villages are gradually formed as supply and demand increase. Machinery is called in to aid, and then come the large manufacturing towns.

We are at about the end of the first, and beginning of the second, period. Villages are becoming visible in every direction—at Hampton, the Bend, Dorchester, Sackville, Sheffield, Woodstock, &c.

Some think, and perhaps they are right, that by a certain course of legislation, called "protection to home industry," the progress towards prosperity can be much hastened; others, that trade should be left to seek out and follow its natural channels, and that Government cannot interfere with the industry of one class, but at the expense and to the injury of others. As an agricultural society, we discard politics, and cannot, therefore, properly express our opinion on either side; whatever way, however, is taken, a speedy progress to prosperity can only follow an increase of enterprise and intelligent industry.

In inquiring into the causes of the backward state of agriculture, the small amount of accumulated capital, in proportion to the business done, and the want of energy and enterprise in the people, it is obvious that, like rich men's sons, we have had so many advantages bestowed upon us, that our energies have been cramped. Our forests have been to us like the gold mines to Spain—they brought money so easily, that not knowing the value of it, we let it go as it came.

The gambling nature of the trade in timber operated also to seduce people from the more slow but sure modes of making a living. The profits of farming—nay, in too many cases, the farms themselves have been sacrificed to the insatiable craving for an easy and quick way of making money which this trade seemed to offer.

From the ease with which the timber growing upon every farm could be converted into money, the population have also acquired a taste for certain descriptions of food, not in themselves more nutritious or agreeable to the taste than the grains and other produce of the country, but which habit has rendered so essential that their use is persisted in, now even when the timber is gone, so that the farmer, from whom we ought to expect not only all our provisions and clothing, but articles of export to pay for the few foreign luxuries we require, and cannot produce, are themselves the chief consumers of imports, without furnishing a single export in return.

It may be profitable to us to compare notes with our friends across the lines—they have no advantage over us in soil or climate, and we are all of the same blood. In former times, like us, they attended to lumbering, to the neglect of their farms.

Some thirty years ago they were very much in our circumstances: the lands worn out, no markets, and unable to compete with the produce of the new and fertile western country. The western fever seized them, and an almost general desertion of the farming population took place. We have read accounts of the northern States at that period, which might be applied word for word to our own country at this day. In process of time, numbers of the emigrants returned, in impaired health, having found out that a fertile soil and mild climate (competition and cost of transport rendering money making out of the question) were dearly bought at the price of health. A new stimulus was given to agricultural pursuits, better modes of culture were adopted, improved stock imported, a sound education made accessible to all, and they are now a prosperous and happy people.

Let us compare their present state with ours—perhaps we may profit by taking a leaf out of their book. While they are furnishing a surplus of butter, cheese, beef and pork, as an export to the English market, we, with equal facilities, do not produce enough for ourselves. While we are grumbling over our long winter, wasting our time in junketing, lounging about taverns or law courts, or what is as bad, cutting logs which will require the best part of the summer to get to market, and in the end run us in debt; their young men and maidens, taking the advantage of every waterpower, and daily inventing new machinery, are making palm-leaf hats, pails, brooms, rakes, and axes, which they hand over to us in exchange for our dollars. While we are pampering ourselves on Genessee flour and yankee pork, the very people who furnish us with these articles pride themselves in living on corn, rye, and buckwheat. While they willingly tax themselves to support a school system which surpasses all that the world has ever seen, and by which every child may obtain the education of a gentleman, we dole out such miserable pittances that no teacher who has strength to be a labourer will stay with us. While they give all honour and respect to the intelligent workers of all classes—while their farmers take pride in their occupation, and keep their scorn for the loafers who seek to live on the labour of others—we despise the horny hand and homespun coat, and those only who are fit for nothing else become farmers. While they love their country and the wise institutions which their own manly exertions have founded, and stir up their national pride by bragging about themselves and all that belongs to them, we, with natural advantages quite equal to theirs, with institutions such as we are pleased to make them, and which are inferior to theirs only through our own lethargy and stupidity, are contented to grovel on year after year, in servile submission to those evils which are the effects of our own spiritless and short-sighted selfishness, without the power to make that vigorous and united effort which alone is required to place us in a position quite equal to theirs, in the meantime, grumbling at and disparaging a country, a climate, and a soil, which are but too good for such thankless ingrates.

To conclude, while they, having exercised a rigid and wise economy in their domestic affairs, turn as one man to take the same care of their public matters, to see that no extravagant salaries are paid, and that their public, like their private, servants, give a fair day's work for a fair day's wages, we—but we must stop, as we are verging on politics.

In our Report of last year, we gave it as our opinion that the low price of beef in our markets might be attributed chiefly to undue competition amongst the producers of that article caused by the want of green crops, for winter feeding. We were agreeably surprised to find that Mr. Macaulay, in his recently published History of England, after describing the state of agriculture in the time of Charles the Second, in words that might be applied almost literally to this Province at this day, adduces a similar reason for like circumstances then existing, and further corroborates other of our opinions by stating, that the agricultural prosperity of England, at a more recent period, might be mainly attributed to the introduction of green cropping on an extensive scale.

But we may be required to show where the capital is to come from that is necessary for carrying out this improved mode of farming, and although the subject is a difficult one, we do not shrink from the task.

The Divine truth, "Whosoever hath, to him shall be given, and he shall have more abundance, but whosoever hath not, from him shall be taken away even that he hath," is as applicable to temporal as to spiritual things. Conducting the inquiry on this principle, we may ask—Do our farmers make a good use of the capital they have?—Do they take advantage of the light shed by science and increased knowledge on their pursuits?—Do they seek to profit by the experience of others?—Do they add the profits derived from farming to the capital, and invest them in further improvements?—Or do they, on the contrary, regularly loan their profits on mortgage, invest them in more land, build saw-mills, or expend them in fitting out their sons as lawyers or store-keepers?—Or to leave generalities and go into particulars—would not the difference in produce arising from a proper rotation of crops, and the present exhausting system, soon increase capital?—Could not each farmer in the country, by the mere exercise of his common sense applied to the matter, at least double the quantity and quality of his manure?—Would not the difference between raising cows of the value of £5 and £10, between a dairy of cows yielding 4lbs. and 8lbs. of butter each per week, between beef selling at 1½d. and 5d. per lb., cheese at 3d. and 6d., butter at 8d. and 1s., oats at 1s. 6d, and 3s.—all such differences, being the result of different management merely, soon leave a surplus of profits which would change the country from a poor into a rich one?

Another mode of obtaining capital, however, is open to us, by means of Banks. Banking capital in this country has hitherto been available only to those engaged in commercial pursuits. Farmers have been rigidly excluded from it, and this chiefly because our Banks were originated for the express purpose of accommodating the mercantile and lumbering interests.

The plan on which they are formed, being a combination of the business of the exchange-broker and money-lender, forces them to have their main dealings with those who can furnish them with Bills of Exchange drawn against exports, and causes the accommodation which they can afford to the general interests to be to a limited extent in amount, and temporary and uncertain in duration.

Were our farmers to furnish an export, which they *will* do sooner or later, say of beef, pork, butter, cheese, wool, hemp, or vegetables, the Banks, as now constituted, would, no doubt, be as ready to deal with them as with other producers. We may mention, as an instance of what may be done in this way, that the farmers' wives in the State of Maine export a greater value of poultry and eggs than we do in timber.

But Banks are wanted with a constitution so founded as to enable them to advance capital to farmers without, at least, the immediate necessity of such a return; and what is called the Scotch Banking system precisely meets our case.

This system was founded for the encouragement of agriculture, and has not hitherto extended beyond that kingdom. On this system, productive land, instead of gold and silver deposited, is the value pledged on which the Banks are allowed to issue notes, and money is principally loaned on what are called cash credits—the borrower being allowed to draw to a certain extent, and paying daily interest on the amount at his debit.

But before farmers can obtain loans on this or any other system, they must first generally deserve and obtain the character of being prudent, industrious, frugal, upright, honourable men, willing and prompt to fulfil all engagements at whatever sacrifice; and second, shew that they can make a profitable use of capital loaned to them.

That there are many farmers who come up to the first condition we are happy to be able to bear testimony; still, from the demoralising nature of the timber trade, in which so many have been engaged, we are not prepared to say, that the above can as yet be held as the general character of our people. With regard to the second, any one who travels through the country and sees the mere *playing* at farming which generally prevails; the main part of the farms lying in weedy and worn-out hay-fields, and stunted pastures, with little pocket-handkerchief patches of green crop; the scratching of the earth, which serves as an excuse for ploughing; the starved mongrel race of cattle, unfit either to yield milk or take on beef; the manure heaps exhaling their gases to heaven, and the precious liquid draining into the nearest brook—and all this with a listless desponding people, afraid to take hold of work for fear it will not pay, so much accustomed to the high wages and profits of a protected timber trade, that they despise the slow returns and prospective benefits resulting from the cultivation of the soil, worshiping *money* as the one thing needful, as the only thing to be desired, and ignorant of, and, therefore, incapable of appreciating, the glorious privilege of being independent, of having enough, and to spare of those things which are ever the reward of frugality and patient industry, and of which money is only the representative.

Any one witnessing such a state of things can have little hesitation in saying, that until an entire change can be brought about, there is already quite enough of capital employed in farming for all the good that is done with it.

That these circumstances are not the effects of any inability in the soil to reward the intelligent cultivator, or any other insurmountable barrier to prosperity, is rendered evident by the fact, that the almost universal answer from every part of the Province, to an enquiry which has been recently made, is, "That farmers who have devoted themselves exclusively to their business have invariably accumulated property, and, with ordinary prudence and industry, have generally become rich."

Our former remarks regarding improved stock perhaps require further explanation. They have been understood as if we wished to introduce *foreign* stock to take the place of native, from, it may have been supposed, our foolish preference for things from abroad, many alleging, that *native* cows give as much milk as foreign, thrive better, and are more suited to the country.

Now, be it observed, that we pronounced no opinion as to one breed of cows being better than another; and the reason why we prefer others to the cows of this country is, *that there is no distinct breed here*, they are all mongrels, or derived from crosses between cows brought into the country with the first settlers, and others since introduced from all parts of the world.

As such, although there may occasionally be good milkers amongst them, the progeny cannot be calculated upon, and the more especially on account of the carelessness that prevails regarding what bulls are kept—anything in the shape of a bull being reckoned quite good enough. Those making a business of it, and depending on the produce of the dairy for the means of paying a heavy rent, could not afford this *playing at farming*. With them it would be a matter of life or death. Every cow would have to do its duty, and produce so much, or the rent could not be paid.

There are *common* cows in Britain as well as in this country. Particular breeds are thus made. A farmer may have in his dairy of twenty cows, say five, that with the same feed will yield more milk and butter than the others. He is aware that it would pay him better if all his cows were equal to those, and to effect this, he breeds his future stock from them only, taking care that the bull is also from a good milker, it being a rule that "like begets like," and killing off any that may not come up to the mark. By careful breeding in this way, for many generations, have breeds been formed, possessing distinctive qualities, colour, and shape—the produce of which retain the characteristics.

None of these breeds are ever crossed for breeding purposes, nor are they allowed to be mixed with common stock. Some breeds also have been made up on account of their size and fattening propensities.

There are in England three celebrated breeds—the Durham, Devon, and Hereford. In Scotland, but one—the Ayrshire. The Galloway, Angus, and West Highland are not used for the dairy.

Now, if our farmers choose to take the trouble, and are willing to leave the benefit as a legacy to their children, they may make a breed of their own too; the same care and time would produce the same results. But common sense suggests that it will be cheaper to take the benefit of the labour and care of others. He must be a poor farmer, however, who is contented year after year to go on with an inferior race of cows without selection or an attempt at improvement.

One cause of the prejudice against the imported breed in this country is from bulls only being introduced into particular districts. The produce of a cross cannot be calculated on, it may take after either parent, or be worthless.

No correct judgment can be formed of the value of any breed unless it is kept pure: a little care and attention in the beginning is all that is required to effect this; and those only who have seen herds of well-bred and well-fed cattle can understand why such prices should be paid for them.

In Britain and the United States, cattle of the improved breeds are valued at more than double the price of the common kinds, and bulls are often sold at from £20 to £100. Does any one suppose that the rent-paying farmer of Britain can afford to do this to gratify a fancy?

At all the cattle shows in Britain premiums are given only for the above breeds. We observe also that at the last New-York State Show, at Syracuse, no other breeding cattle were admitted to compete than pure-bred Durham, Devon, Hereford, and Ayrshire. Native cattle and grade or crosses were excluded. Our Agricultural Societies may take a hint from this. Some of them this year excluded all but native cattle from competing!! Our neighbours of the United States have no want of national pride; and they rather surpass us in a knowledge of what will pay. We may presume, therefore, that in this they are right and we are wrong.

These breeds, however, will be no better than our own, unless they are better treated; they will not even do so well with the same care, never having been accustomed, like our hardy race, to stand cold and hunger.

If dairying is meant to pay, cows should be warmly housed from November to May, and only out to drink, fed with turnips and straw or hay in winter. In summer they should have for pasture the best hayfield on the farm, which can be afforded to them if turnips and straw are fed, and the manure saved from the cows being kept in, will raise all the turnips.

With such treatment the improved breeds will show their superiority.

We trust we will be excused for our want of method in putting together these hurried remarks. We are too much engaged in the active business of life to find time to round periods and construct learned sentences; and, unfortunately, many, who ought to take the lead, who have most interest in the improvement of the country, and most spare time at their disposal, stand coldly aloof, and afford us neither their time, money, nor countenance.

We offer no apology for speaking of Provincial agriculture generally, we being only a local society.—In pressing danger, no one can be blamed for calling "fire!" And if ever a country needed the utmost exertions of every one who can aid in rousing her from a state of almost hopeless asphyxia, this is the one.

With our timber nearly exhausted—without another article of export, and following a mode of agriculture that is fast destroying the ability of the soil to produce food—what but poverty and ruin can overtake us!

But we think we can discern symptoms of better things to come. The public mind is becoming alive to the necessity for giving that attention and encouragement to agriculture to which its importance entitles it.

The idea is gaining ground, that probably this may be a farming country after all! Such being the case, we have full faith in the result, and trust we shall live to see prosperity and happiness, as the reward of intelligent industry, taking the place of our present poverty and despondency.

By order of the Board.

R. JARDINE, *President.*

DOUGLAS B. STEVENS, *Secretary.*

Saint John, October 25, 1849.

APPENDIX.

THOMAS DAVIDSON'S STATEMENT OF TURNIP CROP.

LITTLE RIVER, OCTOBER 16, 1849.

To the President of the Agricultural Society.

SIR,—The way in which I cultivated my field of turnips was thus:—The extent is nine acres; it is a hillside, and the soil is gravelly loam, naturally poor, and had never been in crop. The year before last, I ploughed it in the fall, after pulling the bushes out. In the following spring, I sowed oats and had a fair crop. After the oats were out I drained it with stone drains three feet deep, I then ploughed it deep. This spring I ploughed it twice, and put on 45 single horse loads to the acre of well rotted manure in drills 30 inches apart. I sowed on the top of the manure 3 cwt. of guano to the acre, then closed the drills and sowed turnip seed, about 5lb. to the acre, from 5th to 30th June. The fleas were numerous, but left enough for a crop. I thinned or singled them to about 10 inches apart, by hand, removing the earth from each plant so that it fell over. During the next month I passed through them with the hoe, levelling the drills and destroying all weeds; I ran through them twice afterwards with the drill harrow, and to finish, ran a light furrow with the drill plough to carry off the water. The produce of a square rod in different parts of the field, measured in a flour barrel, estimated at 2½ bushels, was 8 bushels, which shows a produce of 1280 bushels per acre. I have sold about 2000 bushels—1s. 3d. per bushel—and what I cannot sell I intend to feed with straw to my dairy cows, and boiled with chaff to my horses and pigs. I think a bushel of turnips boiled with chaff will go as far as a bushel of bran, and at that rate could be worth from 9d. to 1s. per bushel.

I cannot well estimate the value, however, for feeding, but consider them indispensable. I consider that an acre of turnips would keep five cows through the winter, as well as an acre of hay would keep one.

The cost of cultivation I consider to be—

For ploughing, &c.	£2 10 0		
" thinning and weeding,	0 12 6		
" lifting,	0 10 0		
" manure,	7 5 0		
		10 17 6	
1200 bushels Turnips, at 9d.		45 0 0	
Profit,		£34 2 6	

—Or, in other words, they stand me in about 2d. per bushel. My field of Carrots was cultivated in the same manner. It contained two acres—was sown about the 1st of May with seed prepared as recommended by Mr. Ingledew, and thinned to about four inches. The produce is five and a quarter bushels to the rod, or 840 bushels to the acre. I can sell a considerable quantity at 2s. 6d. per bushel, the rest I will feed to my horses and pigs.

I am your obedient servant,

THOMAS DAVIDSON.

DR. PETERS' STATEMENT.

LANCASTER, October 22d, 1849.

SIR,—My mode of cultivating carrots and turnips is to spread the manure upon the ground at the rate of thirty tons to the acre, and plough it in, then harrow well, and run the drills with a double mould-board plough. My man, with a pair of horses, will plough, harrow, drill and sow an acre in two days with ease, which, at 12s. 6d. per day, is 25s. I weed chiefly with a drill plough and cultivator. My turnips averaged eight bushels to the square rod. My carrots were all housed before I got your note, so that I cannot say how many bushels I had in a square rod, but the circumference of most of them was from eight to ten inches, and the Belgian were from eighteen inches to two feet long. I always sow Carrots upon potato land, and Turnips upon oat stubble. I sell carrots at 2s. 6d. and 3s. per bushel, and turnips at 1s. 3d. to 1s. 4d. I think the White Belgian Carrot the most profitable crop that can be put in the ground.

I remain your obedient servant,

G. P. PETERS.

STATEMENT OF MR. FRED. J. AYERS.

COLDBROOK, October 22d, 1849.

To the President of the Agricultural Society:

SIR,—I send you a certificate of the quantity of turnips to the square rod, which is eight bushels, or at the rate of 1280 bushels to the acre.

I cultivated this season about an acre of turnips. The season being dry and my land laying high, it had a very unpromising appearance until 1st September.—Since then the growth has been most rapid. I adopted Mr. Ingledew's mode of culture, as far as thinning and taking the earth from the plant, leaving nothing but the tap root in the ground, except in a very few instances, to test the principle, as laid down by some writers, but in no instance did it succeed, the turnip being much better when the earth was taken from the plant. The land is a dark loam with a little marl on a gravelly subsoil, which, two years ago, was broken up from very rough pasture and planted with potatoes. I ploughed it last fall, and four times this spring, harrowing well in a day or two after each ploughing, until it was very fine. After the third ploughing, I spread on eighteen double loads of manure, a mixture of horse, cow, and pig dung, and ploughed it in. After harrowing, I run drills twenty-four inches apart, raking them down and sowing the seed as fast as the drills were made. Part sown on 20th June, and the rest on 1st July—the last sowing stood the fly best; and some portion sown on 20th July are as good as any of the field, and have a fine flavour. The past season, on account of the drought, has been a very unfavourable one for the cultivation of the turnip, and I take much pleasure in presenting for competition such a crop,—but as good as the yield is, I think it would have been increased materially had I not committed the very common error of leaving the plants too thick, and having the drills too near each other; but as I am only a novice in agriculture, I will not trouble you with more remarks, further than to state that the cultivation of an acre of turnips in this vicinity may be stated at from £12 to £15, and when the crop is properly cultivated, one thousand bushels to the acre is nothing more than an average crop; and if we put them down at 1s. per bushel—and they are seldom sold at so low a price—it would leave the profit on an acre at Thirty-five Pounds.

I am your ob't. servant,

FREDERICK J. AYERS.

[The above were accompanied by proper certificates.]

Mr. Thomas Dewar, Gardner's Creek, furnishes certificates that he has raised from fifteen acres, 507 bushels of oats. Six acres of buckwheat yielding 143½ bushels, and 4½ acres of potatoes yielding 746 bushels.

Mr. Robert Bowes furnishes a certificate that he has raised 114 bushels of buckwheat.

The following is Mr. Robert Bowes' statement of his plan of saving manure, to which the premium was awarded:—

To the President of the Saint John Agricultural Society.

SIR,—As your Society has offered a Premium to the Farmer who has displayed the most intelligence and economy in saving and making manure, and as I am convinced that upon this depends in a great measure the successful prosecution of Agriculture in this County, I am induced to lay before you my experience in this matter. The exhausting process of farming hitherto carried on in this Province, cannot be improved, save by the production of a larger quantity of manure than heretofore. Convinced of this, I, in the month of July, three years since, hauled out of a bog eighty cart loads of bog earth to the end of the land where I intended to apply it, mixed it with eight hogsheads of quick lime, and let it remain until the following Spring, when I spread it, broad-cast, on about two and a half acres of land, which had been ploughed about the time I hauled out the bog earth. I sowed it with Oats, Timothy, and Red Clover, and harrowed it properly. I had a good crop of Oats that year, and an excellent crop of Hay the next year. I did not, however, like the look of the heap; when I turned it over, the lime seemed dead and the bog wet and cloggy. There was about thirteen or fourteen loads of the bog earth left, with which I had not sufficient lime to mix, and it laid over winter. I determined to try how barn manure would do to mix with it. I accordingly put six cart loads of the barn manure to the bog and let it stand for four or five days, when I found it in a complete state of fermentation. I applied it to a piece of ground alongside the other, and I found the crops to be superior on the latter. The next year, I hauled one hundred and seventy loads of peat to the field where I intended to apply it, and to every seventh load I added one of earth. I turned the heap over twice in the summer, which I found improved it very much. As soon as the frost left in the spring, I had the barn manure admixed, one load to two of the peat, with the latter finely pulverised, and thrown loosely in a compost heap, ten feet in width and five feet in height, shaped thus △ I then left the heap to do for itself. I then harrowed the ground, picked off the stones, and struck out drills two feet apart, and left the ground prepared for the reception of the manure. In four days I found the compost in a proper state of fermentation. (It is necessary to have a few loads of earth convenient, lest the heap would overheat, to throw on the top two or three inches, to prevent the escape of the ammonia or gas.) In a few days the compost packed down eight or ten inches, into a solid mass of fertilizing matter. I let it stand for four days, then hauled it out on the land, thirty-four single horse-load to the acre, and covered it up with the plough in the drills. I put in carrot seed; the day following, I found the manure had warmed the ground, and, notwithstanding the dry weather, the seed germinated, and in four days they appeared above the ground. I planted in the same acre of ground, potatoes, carrots, turnips, beets, cabbage, and corn, all of which grew abundantly, which will appear more fully in the accompanying certificate. So, sir, like the Irish bog, there is something very extraordinary in the peat if properly manufactured, and I would strongly recommend that in all cases the peat should go through a thorough course of fermentation, and, if possible, be applied to the ground when warm. It may be asked, why not add more earth to the heap? I answer, it would prevent fermentation. The manure that I mixed with the muck was that of six cows and two horses, which was evenly mixed through the winter in the barn yard. But, sir, our farmers will think very hard to quit their old method, which was to haul out their manure and apply it to the ground cold, wet, and unmixed, which, if it never was to be put with a compost, it would improve it very much to turn it over, and let it stand for a few days to warm a little before being put in the ground. In our cold spring weather, care should be taken not to put any lime in the same compost with barn manure, as they never agree; the one is sure to eat up the other. It may be asked also, would not quick lime do to mix with peat; and I think it would, by preparing the peat the same as above described, and in the spring, break the lime into small pieces and put it through the peat till it slacks; then turn it over and let it stand four or five days—say, put one load of lime to six loads of muck,—this, I think, when put on the ground warm, would be a very good manure. But this is not the method followed by the farmers of this locality; they commonly mix the lime with the wet sour muck, without turning it over in the summer, or soaking it, or waiting for the required power of the atmosphere to manufacture it; in the spring the lime is dead, and, I think, can be very little service to the land. Charcoal would be another excellent ingredient to make manure, especially to the farmers in the interior parts of the country, who cut so much wood-land down annually and burn it on the ground. If the farmers would [illegible] charcoal of part of the wood they burn up, they would find it very much to [illegible] benefit. I think that sea-weed would be a very good ingredient to mix with for compost; but this article is only to be obtained along the sea board of the Province, and could not apply to the interest or benefit of the farmers generally, only to those farmers who reside along the sea coast. Neither can lime be got except in particular places in this Province, and then it must be purchased at a dear rate, placing it entirely out of the reach of small farmers, or of those in the back settlements and interior parts of the Province. I think the simple mode of making manure that I found out by experiment, would tend to the general good as well in the most remote parts of the Province as in these localities, as the peat can be got almost on every farm, with no other cost than that of manufacturing, and it is within the reach of the poor farmer as well as the rich; and although simple as this mode of making manure may appear, any farmer who will add to his manure heap twice the quantity he makes at his barn yard, and follows it up generally, together with rotation cropping, may rest assured his farm would soon have a different appearance to that which it has this day. I have one hundred and [illegible] single horse loads of bog earth now prepared as above, for the coming spring. I find this description of manure more nutritious to plants than any other I have used. Another good tendency fermentation has on manure is to destroy the seeds, such as dog-nettle, sorrel, and other seeds, which remain safe and sound through the winter about the barn yard. The rough buck-wheat is a grain sown very much these last three or four years all over the country, the seed of which is almost imperishable, and gives the farmer a great deal of trouble in getting out from amongst his crops; it might be destroyed by putting the manure through a thorough course of fermentation in the spring, before applying it to the ground. This description of grain the farmers heretofore hesitated in sowing in consequence of the great difficulty they met with in clearing it out of the land; this difficulty can easily be removed by the following method:—As soon as the crop is removed off the land where it has been grown, put on the harrow and harrow all the fallen grain smoothly.—In a few days a young braird will come up, which should not be interfered with. Now have it eaten down with cattle in order that the seed may be well exhausted before the frost sets in, which will kill the braird, and the farmer may rest assured it will give him no more trouble.

Sir, I hope you will excuse me for trespassing so long on your valuable time.

I remain your obedient servant,

ROBERT BOWES.

Golden Grove, September 20th, 1849.

The following letter from Mr. Layton, of Richibucto, to the Society, on the subject, is deemed worthy of publication:—

[The letter alluded to was published in the "Courier" of 14th April.]

The following is a statement of the proceedings of the Loch Lomond Society:—

LOCH LOMOND, 22d October.

Robert Jardine, Esq., President of the Agricultural Society for Saint John County, &c. &c.

SIR,—As some of the principal premiums recently offered by our infant Society remain to be awarded, I regret that it is not in my power to forward you, for the information of the Society, a full report of our disbursements. At the same time I feel much pleasure in informing you of the unanimity that prevails in this Branch, and the zeal manifested by its members, individually and collectively, to promote the cause of Agriculture generally. [illegible] able members enrolled their names the evening after the Exhibition, adding liberal donations to the funds, and others expressed their determination to become members of the Society immediately.

A great deal could not be expected at the first Annual Show here, at this time, owing to the disadvantageous circumstances under which the country has had to labor (in part occasioned by the failure of the crops for several years previously), but, certainly, the specimens of turnips, carrots, and other vegetables exhibited, as well as grains of various kinds, would do credit to countries far more renowned for agriculture.—The Cattle Show was only ordinary, the stock is in the way of improvement, by the Ayrshire and other good breeds being introduced into this quarter, there cannot be a doubt that, ere long, a very improved breed of cattle will be the result.—Sheep and swine were of a very fair quality; and I am happy to add that quite a change in favor of agriculture has taken place.

I am, sir, your most obedient servant,

JOHN JORDAN,

President of the Loch Lomond and Golden Grove Agricultural Society.

The Directors, thinking it might be of service to obtain the opinion of Mr. Gray, a practical Farmer, recently from Scotland, on various points of husbandry, the following is his reply to their application:

OAK PARK, FREDERICTON, Oct. 24, 1849.

To the President of the St. John Agricultural Society:

Sir,—In answer to your request to furnish you with my mode of cultivating turnips, my opinion of what kind of cows are best adapted for dairy purposes, what rotation of crops I think would be most suitable in this country, and the way in which "Dunlop" cheese is made, I beg to submit the following.

THE CULTIVATION OF TURNIPS.

Land intended for turnips should be ploughed in the fall, especially if it has a portion of clay in its composition. It has thus the benefit of the winter's frost, which renders it friable and easier worked in the Spring. The number of spring ploughings and harrowings will depend on the nature of the soil, which must be thoroughly pulverised and cleaned, every clod broken, and every weed gathered off.—It is then drilled up into ridges of from 26 to 30 inches, according as the land is level and free of stones or otherwise. Well prepared manure is then put into the drills, and seed sown (at the rate of 3 lbs. per acre) as soon after as possible.

It is of great importance that the operations of drilling, manuring, covering the manure, and sowing, should be carried on in as rapid succession as possible. The seed sown on the evening of the day that the manure is applied and covered, will come up under the most unfavourable circumstances, whilst, if it is delayed for only a few hours it will either not vegetate at all or so partially and feebly as to render it useless as a crop. So soon as the young plants show their rows distinctly, the grubber or cultivator should be passed between the rows, and the stripe of surface left by its operation and the line of plants should be taken off by the hand hoe. This is an effectual check to the first growth of weeds, and renders the subsequent working comparatively easy. When the plants have got to some size, and begin to touch each other, they should be singled out to a distance of from ten to fourteen inches, according as the crop is likely to be, a bulky one or otherwise. Moist weather is the best for this operation, but it should not be delayed more than eight days beyond the proper stage, even though the weather should be unfavourable. While the thinning is going on, the earth should be removed from the roots of the plants, so that only the taproot shall have a hold of the soil. At least one hand hoeing will be necessary after this, and as much cultivation between the rows as there is room for up to the time that the plants begin to meet their leaves across the drill. The drill plough may be passed lightly between the rows so as to form a channel for the surface water to run off, but without putting any earth up to the bulbs.

MANGOLD WURTZEL.

The culture of mangold wurtzel is much the same as for turnips, only that it requires to be sown by the hand, and slightly covered with a rake or shovel. It is chiefly valuable as food for milch cows, as it does not, like turnips, taste the milk. In other respects I think it inferior to turnips, and being easily damaged by frost should not, in my opinion, be grown to any great extent in this Province.

CARROTS.

Land intended for carrots should have the manure ploughed in in the fall, with as deep a furrow as possible. The seed should be thoroughly separated, mixed with moist earth or sand, and placed in a rather warm situation, such as a kitchen, and turned over repeatedly for say forty-eight hours before sowing. This will cause the seed to germinate and insure an early braird. The rest of the treatment similar to that for turnips, only in thinning out the distance between the plants to be from four to six inches.

BREEDS OF CATTLE.

From my experience in the matter, I give a decided preference to Ayrshires for the dairy.

I believe they will yield a greater quantity of milk in proportion to the food they consume than any other breed. Besides this, they are docile and hardy, and will thrive on pasture and with a description of keep when such breeds as the Short Horns would starve. They also possess more than average feeding qualities of their own, and when crossed with the Short Horn or Durham Bull, the produce is an animal remarkable for early maturity and a disposition to fatten. If proof were wanting of the excellence of the breed, it would be found in the circumstance that they are carried to almost every quarter of the globe. Large droves are annually taken to England, and during the last ten years, considerable numbers have been shipped to the Cape, the Isle of France, to Sweden, Denmark, Belgium, and the United States.

ROTATION OF CROPS.

The same rotation will not answer equally well on all soils and under all circumstances. The one I consider most generally applicable, and which I have adopted, is the following.

First year (and when the ground has been broken up from grass) oats; Second year, drilled green crop, properly cleaned and manured; Third year, wheat, barley or other grain, with grass seeds; and fourth, fifth, sixth, and seventh year, grass made into hay or pastured.

METHOD OF MAKING DUNLOP CHEESE.

When more than the produce of one milking is used, the old milk must be brought to the same temperature as that newly drawn from the cows, or a little above it. This is best done by putting the milk, after taking off the cream, into a tin and putting that again into boiling water. When the milk is properly heated, it is put into a tub with the cream previously drawn off,) and the new milk, put into a tub and stirred together, and the steep applied. When the milk has coagulated, which should be in about twenty minutes, the whole should be stirred up and thoroughly broken by the hand. In ten minutes afterwards the whey should be taken off, and the curd pressed against the bottom of the tub, till it is firm enough to be lifted into a cloth or vessel with a porous bottom, when it is cut with a knife, once in every ten minutes for an hour. It is then put into a cloth, and a pressure applied to extract the whey more thoroughly. When this is done and the curd gets dry and firm, it is put into a tub and carefully minced with the curd knife, and salt and a little [illegible]. The curd, with a cloth round it, is then put into a chesset, set before the fire for three hours, and turned from time to time to preserve a uniform heat. It is then put in the press and a light pressure applied. At the end of an hour the cheese is turned upside down in the chesset, and a cloth drawn from boiling water [illegible]. At the end of another hour the cloth is again changed, and the cheese is left in the press till the following morning, when it is taken out, slightly heated before the fire, and again returned to the chesset and the press. When the wet cloths have been changed a time or two, a dry cloth is substituted and a greater pressure applied. The dry cloths are changed every two hours till the cheese is perfectly dry. It is taken out, the chesset well warmed, and a thin cloth put into it. The cheese is then returned to the chesset for the last time and subjected to a slight pressure for half an hour, when it is taken out and laid on a plank in a dry situation with a cloth thrown over it for a day or two, and turned over and rubbed with a cloth [illegible] every two days till it is sufficiently [illegible] (taking care not to break the edges), keeping.

The above cannot be called *my* methods exactly, but are the modes commonly practised at present in Ayrshire as the most profitable and advantageous.

If they contribute to make the way more smooth to my brother Farmers in this Province, I shall be gratified.

I am your obedient Servant,

ROBERT GRAY.

AN ENGLISH RECEIPT FOR BUTTER MAKING.

The proper temperature or heat of the cream for churning is from 52 to [illegible] degrees. If below 52 degrees, the butter will suffer from the tediousness of the process; if above 60 degrees, the quality and quantity will be inferior. Work it quickly, washed and beat the butter entirely free of buttermilk, work it [illegible] half an ounce of pounded salt to the pound. Let the butter lie for 24 hours, then for every pound allow half an ounce of the following mixture,—Four [illegible] salt, two of loaf sugar, and a quarter ounce of saltpetre. Beat them well [illegible] and having worked up the butter well, pack it in jars or kits. Instead of [illegible] a layer of salt on the top, which makes a part of the butter useless for [illegible] place a layer of the above mentioned in folds of thin muslin, stitch it [illegible] lay it neatly over the top.

RECEIPT FOR "GOSHEN" CHEESE—NEW-YORK.

The morning milk is strained into a tub, to which the night milk is [illegible] being warmed to about blood-heat. The cream from the evening milk [illegible] and stirred, then passed through a cloth, to render it nearly of the [illegible] the milk. The rennet is next: It is prepared when taken from a calf [illegible] week to a month old, by cleansing to take off grass or saliva, but care [illegible] taken not to be too free with water, after which the curds are well [illegible] turned, with a large quantity of salt to the rennet bag, and suspended in [illegible] ber, when they are usually kept a year or more. We usually put from [illegible] rennets in two gallons of water, and two gills is sufficient for 90 lbs. [illegible] cheese when pressed. The rennet to be well stirred with the milk and [illegible] remain 30 minutes to form the curd, it is then cut into cross sections [illegible] square, and allowed to settle and separate from the whey, when the [illegible] ting and scalding is commenced, by first dipping up a quantity of whey [illegible] it, and returning it to the tub of curd, in which some portion of the [illegible] so that in returning the hot whey you do not heat the whole mass, more [illegible] vent the hand and arm to be held in to continue the process of breaking [illegible] the curd. After the process of scalding is sufficiently advanced to render [illegible] quite hard, and should be as fine as grains of wheat, the whey is entirely [illegible] and cold water applied to run off the whey and cool the curd. One [illegible] fine salt is used for twenty pounds of cheese. We keep them in press 24 [illegible] taken out the cheese are oiled with lard, and turned on shelves until [illegible]