

THE GLEANER:

AND NORTHUMBERLAND, KENT, GLOUCESTER AND RESTIGOUCHE
COMMERCIAL AND AGRICULTURAL JOURNAL.

OLD SERIES] *Nec araneorum sane textus ideo melior, quia ex se fila gignunt, nec noster vilior quia ex alienis libamus ut apes.* [COMPRISED 13 VOLUMES.]

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Agricultural Journal.

From the St. John Courier.
ST. JOHN AGRICULTURAL SOCIETY.
ANNUAL REPORT OF THE DIRECTORS,
FOR 1848.
DRAINING.

As draining is now of great importance in agriculture, and but little understood in this Province, we will offer a few remarks on the subject, with the view of directing attention to its uses and value.

Draining, as understood thirty years ago in England (and to this day with us) merely meant the making of channels to carry off surface water, and underground drains to dry bogs or cut off springs. It has now an entirely different meaning in the agricultural world. Mr. Smith, of Deanston, near Edinburgh, was among the first to practice and explain *thorough draining*, as it is called. His system (and we may say that it is now recognized as the only true system) is, that all land requires to be drained—that the depth of loam, or soil containing the food of plants, seldom exceeds a few inches, resting on a subsoil of pan of clay, or hard gravel, saturated with water. By making drains from two and a half to five feet in depth, at every twenty or thirty feet, the land becomes dry; air takes the place of water; every shower furnished with a stock of ammonia, permeates the soil, and the result is, that instead of a few inches there are as many feet of fertile loam, the action of the atmosphere being sufficient of itself to produce the change, although to hasten the process, subsoil ploughing is made part of the system.

The change produced by the introduction of thorough draining in Britain, is said to be truly astonishing. Not only has the produce been greatly increased, but wheat and turnips have been grown at elevations, and in districts, where their cultivation was not before thought possible. By it, crops have been rendered less liable to disease, and harvest has been forwarded nearly a month. This will be better understood, if we reflect, that when water is allowed to remain in the soil until removed by evaporation, the heat of the sun, and air, instead of being imparted to the land, will actually, through this process, produce an intense degree of cold. On the other hand, were the soil so dry as to allow the rain to pass through, it would imbibe heat from every ray that fell upon it.

The British Government has considered this improvement of so great importance, that during the last three years large sums have been loaned to all applicants, to be expended in drainage, under the superintendance of inspectors. These loans are repaid by annual instalments of 6½ per cent. for about twenty years; and as the money is borrowed by Government at 3 per cent., these payments cancel the loan and interest. Tiles are chiefly used for draining, and are supposed to be cheapest, even when there are stones on the land. In New-Brunswick tiles have not yet been tried; they cost about £1 per thousand in Britain, and might be made as cheaply here if there were a sufficient demand. It has been objected in this Province that drainage by tiles would not answer, in consequence of the depth to which frost penetrates; but to this we reply, that frost will not penetrate so deep in dry land as in wet—dry earth, the interstices filled with air, being nearly equal as a non-conductor to a covering of snow.

We are very sure it would pay the farmer better to spend a few spare days in draining, than in hanging about the market with a waggon-load of oats or potatoes to be exchanged for Genesee flour; and his spare capital might be invested much more safely and profitably in draining, than in logging or horse racing.

THE RUST IN WHEAT.

The following remarks as to one of the causes of rust in wheat, are thrown out rather as a supposition than an opinion, with the view of exciting enquiry.

The oat draws nutriment from the earth by side roots, which spread over the ground. The wheat plant has similar rootlets; but in addition thereto, when about to head, sends down a taproot into the earth, for the purpose, it may be presumed, of procuring that additional nutriment which its large rich ear requires, and this taproot has been known to go down to the depth of four feet. We may observe, that up to the time of sending down the tap root, the wheat is the hardiest and thriest of all the cereals, but afterwards the most liable to disease. This delicacy is readily accounted for, when we consider that land is generally undrained—that not more than a few inches of soil get the benefit of the sun, air, and manure, and that, therefore, the root must encounter in its downward travel, nothing but disappointment. It comes in contact with the cold clay, or a sour, wet subsoil, turns back in despair and dies. In accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, come to finish the work of devastation on the dying plant. The forlorn farmer rails at the climate, and cries out that his wheat is killed by rust, while in fact, it has died from starvation—from the want of that food which, as a provident husbandman, it was his duty to have provided for it.

THE FAIR AND CATTLE SHOW OF 1848.

The Annual Fair took place on the 5th October inst., and a list of the premiums awarded has already been published. The show was the best we have yet had; the improvement in the young stock, caused by the introduction of the Ayrshire and Alderney breeds into the County, was evident and gratifying. There was also considerable competition, and a respectable show of grain, butter, and vegetables. Three samples of oats which were exhibited, weighed respectively 47 lbs. 46½ lbs. and 44 lbs. the bushel.

We have adjudged the first premium, for the large quantity of Turnips grown, to Mr. James Ingledew; and the second premium to William Hawkes, Esq. We have awarded the first premium for carrots to Mr. Ingledew; and the prize for the best report on the saving of manure, to Mr. Hawkes. The report of Mr. Ingledew on the culture of carrots, and the reports of Mr. Hawkes on turnips, and the saving of manure, are appended hereto, and will be found well worthy of attention. We hail these reports as the dawn of better things, and of more prosperous times.

A PROVINCIAL BOARD OF AGRICULTURE.

In our report of 1847, we called the attention of this community, and of other societies throughout the Province, to the propriety of urging upon the Legislature, the adoption of energetic measures by means of which the agriculture of the Province might be raised from its present disgraced and ruinous position.

The only results of our appeal were, a grant of £500 to import race-horses, and the enactment of a law to prevent the growth of thistles!

The time seems now to have arrived, however, when a continuance of apathy and neglect, on the part of government and the people, in relation to agriculture as a subject of the most vital importance to the province, will certainly and speedily bring about universal bankruptcy, and the depopulation of the country. As we do not content ourselves with the cuckoo cry of "something should be done," we proceed to state what we conceive *can and ought* to be done.

In the first place, we propose that a Provincial Board of Agriculture should be formed, to be composed of those who, from their position, energy, business habits, and acquaintance with the state of agriculture in this and other countries, would be most likely to bring forward, and carry out, measures of improvement. Sufficient funds should be placed at the disposal of this Board to enable it to carry on its operations with vigour and effect.

Next, as to the work to be done. It is not so much the want of industry, as the

want of knowledge, which renders farming unsuccessful in this Colony. Our native farmers as might be expected, follow in the footsteps of their fathers; they neither see, nor heard of, any better methods than those of their ancestors. Those emigrants who undertake agricultural pursuits, do as they see others doing; and as few, or none, of these new settlers have been bred to farming, they introduce if possible, a worse system than the old one—an exclusive reliance on the potato.

The mode of culture adapted to the virgin soil—to the rich leaf mould newly rescued from the forest—will impoverish and render valueless the cleared fields which now compose so much of our farms. Yet the cultivation by which these worn out fields could be made to produce far more than ever the burnt land did, is unknown and unpracticed. There is no rotation of crops—draining—no proper ploughing—and but imperfect manuring, as hay, and most of the other produce are sold off the farm; consequently the land is almost barren. Only uncertain and short crops are produced, and the universal cry is—"No use trying! Farming in this country will not pay." And no wonder—such farming would not pay in any country.

To introduce, and encourage, a better system of farming, would be the chief business of the Board.

There are various ways by which agriculture is encouraged in other countries. The Agricultural Boards of the United Kingdom employ lecturers on agriculture who visit every part of the country. The Boards also establish model farms, and agricultural schools, in which the best modes of agriculture are carried on, with the view of all, and at the same time means are adopted, by a system of accurate accounts, of furnishing ample knowledge as to the profit and loss of farming upon sound principles. The Boards have frequent Shows in different parts of the country, where large premiums are distributed for improvements in stock, or in modes of cultivation. It is notorious, that Great Britain owes her elevated position in agriculture chiefly to these means. In Holland, Germany and Sweden, agricultural colleges with model farms attached, are considered as necessary as courts of law or churches. The agriculture of a great part of Scotland was rescued by the Highland Society from much such a state as that of New-Brunswick is now in, but little more than half a century since.

There are peculiarities, in our position, however, which must affect the mode of procedure. From the protection heretofore enjoyed by our timber in our British market, and the exclusive encouragement given to that branch of trade by our own Legislature, timber getting, and the branches of business intimately connected with, and depending upon it, have absorbed all the energy, industry and capital of the province. Agriculture, the only source of permanent prosperity to any country, has not only been neglected but absolutely sacrificed. In this country, capital accumulated in other pursuits, instead of being invested in the improvement of land, as in most other countries, has been taken (with the addition of all that could be scoured from the farms) to supply lumbering-parties, and to build saw-mills. Farming, thus neglected, would of course prove unprofitable; and farmers themselves being leudest in crying out that farming would not pay, the character of the Province, as an agricultural country, has been sunk to the lowest possible ebb, not only among ourselves, but in those quarters from whence we might expect assistance and encouragement. It is owing to this erroneous opinion of the agricultural capabilities of New-Brunswick, that while foreign capital and skill are pouring into the United States, Canada, and Australia, the emigrants to our shores have been generally poor and ignorant. Farmers, with capital, pass us by,—the people of New-Brunswick say it is not a farming country; and the wealthy emigrant takes their word for it, naturally supposing they

ought to know best. That New-Brunswick is not the land for farmers is therefore set down as an established fact it is so stated to emigrants at the various ports of embarkation throughout the United Kingdom, and it is urged upon them in many of the publications for their information and guidance.

To remove this false impression, and make known to farmers in other countries, who are inclined to emigrate, these facts—that our climate and seasons are quite favorable to the growth of wheat, maize, barley, oats, hemp, and all vegetables—that few countries possess a greater proportion of soil fit for cultivation—that freehold farms, ready for the plough, can be obtained for less than the annual rent paid for similar farms in older countries—will be the duty of a Provincial Board of Agriculture; and this, with the task of introducing into the country, by means of model farms and otherwise, a system of farming which will pay, and the labour of providing instruction in this new system, to farmers' sons and others, throughout the Province, will furnish ample employment to the Board for many years to come.

The whole success of the Board will of course depend upon the appointments being made of those who will fit the offices, and not from among those whom the offices will fit.

We trust that the other Agricultural Societies, and the friends of Agriculture throughout the Province, will give serious attention to these suggestions, and co-operate, with us in bringing this subject under the notice of the Government and the Legislature. As our sole motive is an earnest desire to promote the welfare of the country, we shall hope to be excused for thus earnestly pressing our views and opinions upon the people generally, and seeking the co-operation in a matter of such vital importance. The occasion is so pressing; that it behoves every man to be "up and doing." Our one article of export is now a drug in every market; and as our farmers do not even produce sufficient food for themselves, we must change our course or the Province will be deserted.

ADDRESS TO FARMERS.

To the farmers of New-Brunswick we would say:—The prosperity of the country depends upon you. It is only by well directed energy and economy on your part that a surplus of food can be produced; and until we have that surplus, no manufactures can be carried on profitably. Will you allow it to be said that while farmers in other countries, pressed down by heavy rents and taxes, and without any right of property in their improvements, are causing their fields to yield double, that you—the owners of the soil—with a climate abundantly favourable for almost every crop—with miles on miles of fertile alluvial valleys, and hills that may be cultivated to their very tops—with a government of your own choosing, and lighter taxes than any country in the world—that you are not only not improving, but are actually going backward!

Farmers of New-Brunswick! You stop the way—you must move onward!

Signed by order of the Board.

ROBERT JARDINE, President.
M. H. PERLEY, Corresponding Secretary.
St John, October 20th, 1848,
[To be Continued.]

SMUT IN WHEAT—SEED PREPARATION.

A "Rutland Farmer" gives the following account of the process by which he has for nearly twenty years prepared his seed wheat, and as he says, with "universal success": "I use a half a pound of vitriol to a quarter of wheat, and apply it thus:—Shoot down on a floor one quarter of wheat, fill two buckets with boiling water nearly to the brim, but leaving room for a good shovelful of quick lime to each bucket (this causes considerable ebullition), stir it up, and in a minute or two pour into the heap of wheat, together with the vitriol (previously dissolved), turn all over once or twice, or until