

# THE GLEANER

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

New Series, Vol. 1:

*Nec aranearum sane textus ideo melior, quia ex se fila gignant, nec noster vilior quia ex alienis libamus ut apes.*

No. 18.

Miramichi, Tuesday Morning, January 24, 1843.

## THE GLEANER.

### Agricultural Journal.

From the American Agriculturalist.  
IMPROVEMENT OF SANDY SOILS.

The hon. W. Clark, of Northampton, has been the great pioneer in the improvement of sandy soils, and from the successful results he has achieved we may fairly class him among the great agricultural reformers of the present day. He has already given to the public the theory of his operations, which we hope to find room to lay before our readers at some future time. Our object now is simply to give his practice, and after our farmers have begun the good work of reclaiming their almost barren wastes, it will be a pleasure for them to look into the *modus operandi*, and see the reason of their success. There are three essential features in this practice, and the simultaneous adoption of each is essential to effect the desired object. The first is the frequent and thorough use of the roller; the second, a constant covering of crops on the ground; the third is the introduction of clover and grass as a fertilizer. To illustrate this, we give the history of a single field of some forty acres of worn-out sandy soil, in the vicinity of N. This field was purchased by Mr. C. some eight or ten years since for nine dollars per acre, while the fertile bottom lands, on the other side of the town, would sell readily for \$150 to \$200. His object was first to get a crop of corn if possible, and the land being too poor for this, he carried on to it a moderate quantity of peat or swamp muck, which was found in the low places on the same field. We may observe in passing, this peat and muck exist to an almost unlimited extent throughout New England, and we consider it of vastly more intrinsic value to the community than all the gold mines that have dazzled the eyes of our Southern neighbors for the last fifteen years. With this dressing, say of fifteen to thirty loads to the acre, the whole cost of which consists simply in digging and throwing into heaps, to be drained, and acted on by the atmosphere, after which it is carried either by carts or sleds in winter on to the adjacent ground; the land is then ploughed, and whatever scurf, sand grass, rushes, mosses, pusseys and briars there may be on the land are turned under, and such is the digestibility of the soil, all these raw materials are at once converted into humus or geine as food for the required plants. This sandy soil has the stomach of an ostrich, and if it cannot, as that voracious biped has the credit of doing, digest old shoes iron spikes, and junk bottles, it can dissolve and convert into vegetable chyle, whatever organized matter is given to it. The effect of this comparatively slight dressing yielded a first crop of some thirty bushels of corn to the acre, enough to pay for the first cost of the land, and the whole expense of producing it. But while the corn was growing, say from the 20th July to the 10th of August, rye, with red and white clover seed was sown,

and the corn being so planted as to admit of harrowing two ways, or even four if necessary, it was well got in with the harrow, and the ground being amply protected by the corn during the sultry weather of this season, the new seed took a vigorous start, and as soon as the corn was somewhat matured, it was cut and carried off the ground, and the new growth then had the entire possession. The roller was then thoroughly applied, as also in the following spring. The early sowing gives strength to the roots of both rye and clover, and renders hazard of winter killing either, especially the clover, much less. When from any cause he is prevented from sowing the clover early, it is omitted till early in the following spring; postponement that should be avoided when possible, as it thus loses a year's time, requiring another season to mature. The rye is cut the following summer, when the clover is suffered to remain, shedding its seed upon the ground for a successive crop. The following season, if in a proper condition, it is again put into corn or rye according to its fertility, and the course is again renewed. The land, however, usually requires an additional season in clover, and sometimes more, to give the requisite fertility. Mr. C. showed us a field, which from the originally poor condition described, without the addition of any manure or peat or muck, has produced him five crops in seven years, the last, which he had just taken off, yielding seventeen bushels to the acre. This, it will be readily admitted, is a large crop for poor land, and much beyond the average yield in New England. The growth of the clover on this field, of this spring's sowing, was promising in the highest degree, and as evenly set as in the best land, giving every promise of a large crop the next season, which of course is designed to be added to the soil for its future improvement. When the land is first put into use, (for Mr. C. has several other similar fields which have been variously treated, though always on the same principles,) and it is too poor to produce a paying crop of corn, and he has not time to add the muck, he turns under the surface vegetation, and puts on a crop of rye, always accompanying this with the clover, and after one year's crop from this last, he never fails in a fair yield of corn. On a field thus treated, without any dressing of muck, he got twenty-seven bushels of corn per acre for the first crop, and after an interval of another season, obtained thirty-three bushels on the same land, showing a decided increase in the productiveness of the soil. A slight dressing of plaster is generally, though not always, used, and never exceeds half a bushel to the acre. Mr. C. admits that more plaster might be useful; we think that one to two bushels per acre would be applied with decided advantage, but it is purchased at a high price, about \$10 per ton, and as economy and a self-sustaining policy has been a prominent principle in this system, this is all that has thus far been afforded. The muck would in all cases be a valuable, remunerating addition, but this he has

not always the time to give, and at the prices he has paid for his land, he can afford to leave it once in two or three years in clover, by which it is renovated, and for the present perhaps this may be the most judicious plan. As lands become dearer, however, which they are rapidly doing under this management, they being now worth \$20 to \$30 per acre, of no better quality than such as he bought a few years since at \$8 to \$12, the policy of manuring will become more expedient, though the rapidly improving nature of this system will give greater efficacy to the clover crop as a fertilizer.

It is surprising to see the elevated hills and barren plains, that so lately exhibited nothing but a crawling sand, by the operations of the clover roots in this otherwise impracticable material, gradually changing its adhesive character to a firmly connected mass, showing a furrow slice that would gratify the most practised eye. Mr. Clark acknowledges his surprise at the facility with which the clover takes, and attributes it mainly to the use of the roller. We are inclined to concede much to that instrument, but think for his white and other clover he is greatly indebted to the plaster.

We observed the woodchucks, who are arrant epicures and gormands in their selection of esculents, and especially of sweet and abundant clover fields, are thoroughly colonized over all the fields of Mr. C. They follow him, as our politicians do the successful candidate of executive dispensation for John Randolph's seven principles, the five loaves and two fishes. They snuff his green patches of trefoils, and instantly abandon the poverty stricken fields of his unthrifty neighbors. His crop of woodchucks, though not as important as the shoe crop at Lynn may soon be well worth the harvesting.

Mr. C. has not pursued this cultivation sufficiently long to have matured a system of rotation, which however, he virtually practises with some variations, from his own judgement. A little more experience will enable him to determine, whether a crop can be taken more advantageously every second or every third year but we are satisfied with a moderate dressing for the corn, the rotation might be of three years' duration, affording alternately corn, rye, and clover, the last to be added entire when dry, to the soil, for its improvement. Green crops are never used as improvers, they always being allowed to mature before turning under. Plaster should always be added, unless ashes or lime can be more economically applied; but the former is limited in supply, and the latter is to be had only at a price which will effectually prevent its use in this region.

Here, then we have a system for reclaiming barren wastes within every one's reach; costing nothing, and yielding a great deal; and if this were rigidly carried into practice, how soon should we see the naked sand banks, that exist, to a greater or less extent, everywhere between the Alleghanies and Atlantic, converted into verdant, luxuriant fields. Yet for the want

of the application and steady perseverance in this plain, straightforward simple course, how many will continue to live on in ignorant poverty, when they might with less toil, and the use of a moderate share of intelligence, have a competency. A single bar left down in this practice, lets in the whole herd of Pharaoh's lean kine. Without the roller and plaster you get no clover; if you cut off the clover when grown, you get no subsequent crop; or if you crop too closely or rapidly, the clover bearing properties of the soil are exhausted, and new manures, or years of idle, wasteful fallow are necessary to resuscitate it; whereas, by a careful observance of the above plan, the ground is constantly and profitably at work, bearing its burdens on equitable shares, giving one half or two thirds to you, and reserving the remainder to itself, to enable it to continue the supply.

Though Mr. C. does not connect any grazing or stock feeding with these operations, it is easy to see how it can most advantageously and profitably be associated with them. Cattle and sheep can be put on to the rye fields both in the fall and spring, when sufficiently thick and stout to justify it, and when well sodded over with clover, what more mutually advantageous to cattle and land than such a copartnership.

We must add a word for the benefit of our readers as have no sandy or sterile soils, nothing but virgin fertility, falsely estimated to be exhaustless. We beg all such to consider that the principal for reclaiming, are the principals for preserving also; that no land is so rich but can be exhausted, unless fed by inundations, and that there is more profit in sustaining their lands in the highest condition of fertility, than by a wasteful system of cropping, first to reduce them to be resuscitated again by slow and painful efforts, or abandon to posterity to be gradually reclaimed by the sure, though dilatory operations of nature, to that state of fertility which they might have been preserved.

There are some particular advantages that attach to the tillage of light sandy soils. They require the least possible efforts to plough and harrow, and these operations can be formed at all seasons when not frozen; no season is too wet or too late or too early for them. They require no underdraining, and the food for vegetables in whatever shape it is added however crude and indigestible, is immediately converted into pabulum for the required crop. The amount of corn and rye afforded per acre would not satisfy a western farmer, and very properly too, but he must recollect that his prices seldom exceed one half of those obtained at the East, rye and corn being worth usually sixty to ninety cents per bushel, and the straw and stalks go far towards meeting the costs of cultivation. The luxuries, also, of good buildings, which are always to be had for less than cost, good roads, schools, and churches, and all the accompaniments of a well ordered society are at hand, and are cogent reasons for reconciling the reflecting mind to the absence of that