

4 bbls. corn, at \$1 per bbl. -	\$4.00
80 galls. sour milk, 2½ cts. pr gall.	2.00
2 pigs, four weeks old, at \$2.50 ea.	5.00
Profit to balance -	3.00

\$14.00

H. E. DECIE.

## ON THE DRAINAGE OF FARM LANDS IN NOVA SCOTIA.

[We have much pleasure in publishing the following very useful article, which contains information and suggestions of a thoroughly practical kind.—ED.]

MR. EDITOR:—I have noticed with pleasure articles contributed from time to time to your paper on the subject of agriculture, but although various branches of it have been referred to, the most important has been almost entirely omitted. We often see in newspapers and other journals, farmers recommended to, and almost censured for not draining their land, while the authors often seem unacquainted with the difficulties that attend this operation, or do not give much assistance to farmers to overcome them. I do not wish to take up more of your space than is necessary to point out what would be the advantage of draining, and disadvantages from the neglect of it, particularly as applied to this Province. No draining can be considered thorough, or a good return expected for the investment, except the subsoil is thoroughly dried. The reason is obvious. The depth and distance the drains should be put apart, to be regulated by the characters of the soil and subsoil; and the deeper they are put, generally affording them to be placed farther apart. This is very important where the material for forming the duct is so expensive. When land is undrained and an impervious subsoil underlays, the water has to be evaporated through the soil. Consequently, if a late season, it is often nearly June before a plough can be put into the ground; this is generally fatal to crops in this country. In the fall the growth is also checked from the same cause, consequently, the growing season of crops, especially green crops, is much curtailed. Several seasons have passed, the last one in particular, when, but for the undrained land, the spring was as early and forward for agricultural operations as the average ones in Great Britain. The baking of land in dry summers, so that winter wheat cannot be sown, is another evil. I think that draining would in many cases, cause the wheat to ripen in time, to be clear of the weevil, the throwing out of clover, and other roots, in fact these and many other inconveniences may be put down to undrained land. Of its advantages, Stephens in his Book of the Farm, a work universally

quoted by writers of the present day, gives instances in England, Ireland and Scotland, where draining of estates has paid landowners thirty per cent., and of an instance which has come under my own eyes last year, barley yielded at the rate of sixty-three bushels per acre within twenty feet of a drain, against thirty-five from other parts of the same field; the writer of this was also shown some fruit trees, the growth of which was astonishing, considering the dry season of last summer, and entirely owing to under-draining. I have considered it necessary to enter on these details as many farmers are strangers to draining in every respect. Of the difficulties—although Nova Scotia from her climate and soil requires the land to be drained more than any part of North America, she appears to be the only place (except perhaps New Brunswick) where the means of carrying out this drainage cannot be furnished to enterprising farmers at a reasonable cost. I have lately taken a great deal of trouble to ascertain where this can be procured, and at what cost, and it is much as follows: in Liverpool and Glasgow about twenty-four shillings sterling per thousand, each tile 14 inches long, but breakage, freight, &c., bring them up to seventy shillings stg., when landed in Nova Scotia; in Canada they are made for six dollars per thousand, while in Nova Scotia they cost the enormous sum of five pounds per thousand feet or more, at the potteries, making them entirely useless to farmers. If the government would offer a large premium to any one who would furnish tiles at a reasonable rate, it would be a great boon to the agricultural population, and would indirectly benefit the whole community. It must certainly come to this at last, the best attempts at farming in the present day without drainage is but a farce, and with prospects of high prices, farmers are quite warranted, and will go to the expense, provided they can be furnished with something to fill in the drains with at a reasonable rate. As the railways are extended east and west tiles could be supplied to farmers near the line with only one handling. I may mention that in the Canada Farmer, tile making machines are advertised at \$120, to turn out from six to eight thousand per diem, and a Mr. Sutton offers to set up a yard in any district where he may receive reasonable encouragement. — Using tiles lessens the cost of digging greatly, as the cut need only be wide enough for a tile. I hope the Agricultural Committee will give this subject the attention it deserves. I consider that as things are at present, the want of these tiles offers the greatest obstacles to successful farming in N. S. As many may think that this should be done by private enterprise, I may remark that when drainage commenced in England, so alive were

the Representatives to the importance of it to the country, that any farmer could claim a certain sum from the treasury at a certain rate for this purpose, and commissioners were appointed to decide upon what constituted a legal claim. It has at least as good a right to come under Legislative patronage as Bone Mills and imported stock, which latter, from being herded on the beautiful pasture that water-logged land is so justly celebrated for, soon lose the distinguishing qualities of their ancestors. Besides, farmers can hardly be expected to become brick and tile makers themselves, so they have the choice of waiting for the slow progress of private enterprise, and farming at a great disadvantage in the mean time, but blaming it all on the unfortunate climate, or else draining with poles, or some other slovenly and unsatisfactory way, which is just as expensive as tile draining should be, and is rarely effective when finished. No doubt one objection will be made, that the cost of draining will be so great that few will be willing to undertake it. I would not in the present state of farming in Nova Scotia recommend the drainage of stiff clays where the drains would require to be placed fifteen or twenty feet apart, but loams could generally be drained by deep drains about forty feet apart, so that eight hundred fifteen inch tiles would be sufficient for one acre; the digging would cost about one shilling per rod, so that the two chief expenses would be covered by from six to seven pounds per acre, which is no more than a good coat of marsh mud with half a mile hauling would cost, a method of improving land that is in great favor in this province. Yours, &c.,

A FARMER.

## RESULTS OF WURZEL CULTURE IN GRANVILLE—WHITE SUGAR BEET—BELGIUM CARROT—ORCHARD GRASS.

DEAR JOURNAL.—A correspondent in the March No. speaks highly of the mangel wurzel or scarcity root as a field crop, and it deserves all he has said in its favour. In our valley, crops have been raised exceeding his, and specimens shewn outweighing them. I do not say this boastingly, but simply to encourage the growth of this valuable root. I am sorry I cannot give in figures proof of what I now advance, but hope to be able to do so next fall. My favourite "scarcity root" is the white sugar loaf, which I have raised some six years. My attention was drawn to it in France, where sugar is largely manufactured from it, and where I have seen, perhaps, twenty acres in one lot planted with it. I find it to fatten stock as well as potatoes. Pigs are very fond of it and fatten rapidly; while the crop per acre far exceeds that of any root