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ED. A. BARNARD,  
Dir. of Agriculture.

### Value of liquid manure.

TO THE EDITOR OF THE ILLUSTRATED JOURNAL  
OF AGRICULTURE.

Dear Sir,—Under the above heading, I find another remarkable article from our good friend, Dr Hoskins. (1) *En passant*, let me say that his recent paper, in the *Journal*, on strawberry culture, is the most complete and most practical advice on this subject I have yet seen in print.

Respecting manure, you have shown that where no loss occurs from deperdition, in either solid or liquid excreta, the farmer of Canada is not in need of high-priced artificially prepared fertilizers: that he can purchase, with great benefit to his stock, either for beef or for milk, such foods as cottonseed cake, peas, bran, &c., &c., and obtain, in the manure alone, more real money value than the full cost of such food. However, in the practice, most of your readers must have found, as I have, that there must have been a leak somewhere. Otherwise, their farms would be richer, and their own purses more replete.

Dr Hoskins, in his turn, shows that, on an average, about 75 0/10 of the nitrogen contained in such food is voided as liquid. Now sir, how much of this precious liquid is lost through the floors of stables, or washed away from the dung heap before it reaches the ground for the fertilization of which it was intended? I say, most farmers lose fully 75 0/10 of such liquid. Am I right?

One of the most important subjects which the *Journal* might take up, in my opinion, is the best mode of saving liquid manure from waste, from the time it is voided by the animal to its final distribution as true plant food! Dr Hoskins speaks in a general way of a water tight gutter to receive both solid and liquid voidings. I suppose a water tight manure cellar is here meant in connection; as, both in Quebec and in Vermont, winters are too severe to have manure spread over the snow without loss.

Should Dr Hoskins and yourself give us farmers the way of utilizing all or nearly all of our liquid manure, without too much expenditure in tanks and manure cellars, cartage, &c., and without any injury whatever to our stock when it lies in the stable, such advice should prove invaluable. Your truly,

ED. A. BARNARD.

Quebec, 30 Sept. 1884.

### LINCOLN COLLEGE FARM, SOREL.—OCT. 1884.

September did its best to remedy the destruction caused by the terrible drought of August. The opening of the month was hot enough, but a shower or two revived the drooping leaves of the root-crop, and though the crop of cabbages is not what it ought to be, still the heads of a majority are fine and firm, and look as if they would keep. (2) A

(1) The article in question was not written by Dr Hoskins, but was extracted from a paper the name of which Dr Hoskins has forgotten. I will do my best to comply with Mr Barnard's request next month—the subject is a very difficult one.

A. R. J. F.  
A. R. J. F.

(2) I regret to say many are bursting.

fine rain on the 7th, succeeded by a smoking hot week. A pleasant day was Saturday the 13th! I who never wear a great coat in the coldest winter's day, was glad to sneak into the cabin of the steamer as I crossed from Berthier to Sorel. I had been very ill, though, all the Exhibition week; so perhaps that was some excuse for my chilliness.

It has been astonishing all through the drought to see how the Belgian carrots persisted in growing. The lower leaves of the cabbages and swedes dropped off by wholesale, but the *braves Belges* never flagged for a moment. I am just attacking them to-day, and hope to have them in the cellar this week; a crop worth gathering, as there are about a thousand bushels of them and all of first-rate quality. The tops alone must weigh six or seven tons, in fact I never saw so much food on an acre of land, and the cows seem to enjoy the greens very much and do not scour in the least on them: they have a mixture of pease, oats, and linseed as a corrective.

A sharp frost on the 19th. All the tomatoes done for, and worse, the Hungarian grass out to pieces, browned, and spoiled. It should have been fed off before, and would have been, but my stock had not arrived in time.

The potatoes turned out much better than I expected. About 300 bushels on a scant acre. They had no right to do so well, as the ground was not half prepared owing to no fall-ploughing having been done. One torment here is the grub of the cockchafer (May-bug it is called in the States, I believe), which this season has played the very mischief with the Early Roses. The grub is about an inch long, very thick, and its appearance is as brutal as its effects. I can't say more in its dispraise. If it would eat one potato and have done with it, I should not so much mind; but it goes into the finest, bites out a little piece, and travelling on, attacks the next best, never interfering with the small ones. I know of no cure for this complaint, but the first frosty morning I shall pass the cultivator across the piece, and see what that will do. The fat brutes, however, look so thriving, that I do not expect to profit much by the essay.

My neighbours will not believe that the frequent horse-hoeing between the rows of the root-crops can have any great effect on the yield! Now, my white turnips are the only ones on the western side of Sorel—both whites and yellows have utterly failed all along the St. Lawrence, none are bigger than a tennis ball, though the plant is perfect: how far this extends I can't say, all I know is, that my turnips, with 7 inches of loose mould between the rows, have thrown out roots, as large as a thick straw, which meet midway between the rows: the turnips are, on an average, 7 inches in diameter; quite large enough for whites, as a large white turnip is, generally, hollow and spongy. To night I send off a specimen of each of my root-crops to Mr. Lesage, Deputy Commissioner of Agriculture—I don't think he will have much fault to find with them.

Mr. Loonan, a Scotch farmer, whose reputation is great here, sent some swedes to the Sorel market on Saturday, the weight of which, I am told, was 8½ lbs. each! If so, he beats me by 1½ lbs.; but then he has cultivated his land for 16 years—I have had mine in hand only five months, and I leave it to Messieurs Les Sorelois to say what its condition was when I took it in hand.

My sheep are on the *rape*, and a nice job it is! They are all either *creepers* or *jumpers*, and if the hurdles are not adjusted to a nicety, the lambs of the flock are sure to be out the moment the keep runs a little short. It is not all play—accustoming a wild lot to confinement,—but with patience it can be done. The old ewes are quiet enough. One thing is curious, they won't work up the few white turnips there are at all; and this reminds me of a story current in South