

This was sown on the lower land across, the S. E. railroad, by the cemetery, on a *grillée*. Some of the same I sowed myself on the sand nearer Sorel village (town: I beg to apologise) was also most successful. I think with the 7 pounds of rye grass, 7 pounds of Orchard grass, perhaps 4 pounds of timothy and the above clovers, one would have as good a meadow as can be wished for though, no doubt, some fescues and reas, with a little foxtail, would improve the mixture. But above all things, do not waste time, labour, and money in trying to improve worn-out grass-land by harrowing and sowing seeds. Go at it like men; break it up, grow a crop of pease, if you like, a crop of roots or corn, well manured and well horse-hoed, and then sow down again with grass-seed and a grain-crop. Alsike clover I doubt lasting long on light sand. Do not allow any of grasses to go to seed: however *perennial* they may be, the seeding exhausts them, and the majority will die. Feed pasture level, by heavy stocking and then change your cattle to a fresh piece. If the grass gets ragged in appearance, from the want of close feeding, run the mower over it. Knock about the droppings of the cattle when you can spare time. Two pounds per head a day of cotton-seed or linseed-cake, or of corn, for cows on pasture will pay over and over again. Divide your pasture into three parts. When young horses are loosed from the plough and turned into the cow-pasture to graze, it is great fun sometimes to see them chivy the cows about: but, I don't think it is fun for the cows, or conducive to the soundness of the milk.

Bone-Ash.—By the bye, I observe that Mr. Barnard recommends the use of animal-black, in conjunction with ashes, as a manure for buckwheat to be sown about the 20th May and ploughed in the 20th July. My own idea is that insoluble as is the phosphoric acid in the bone-ash it will have but little or no effect on the buckwheat, though it will do no end of good to the following crop. Four hundred pounds of animal-black would cost about \$4.00, which expended in buying 100 lbs. of sulphate of ammoniac would certainly produce a much larger amount of green manure than any quantity of bone-ash. Perhaps, as Mr. Barnard is about instituting experiments on the effects of various artificial manures on his farm at Three-Rivers, he will kindly try the two different manures on a piece of worn-out land. I doubt the correctness of the position that "the bone-ash and the wood ashes, together with the green buckwheat, would give all that farmyard manure can give." I know little or nothing about buckwheat growing, but I do not think the plant when in bloom contains any great proportion of nitrogen. At all events it contains nearly 98 parts per cent of water and carbohydrates, so its nitrogenous matter cannot be more than $2\frac{1}{2}$ per cent, and allowing eight tons to the arpent of green-stuff to be ploughed in, I cannot see that the succeeding crops can be much benefited by the operation. In this it differs very much from the interring of a clover-ley, for the roots of clover are very abundant and excessively rich in nitrogen, whereas the roots of buckwheat are of trifling bulk, and they do not dive into the subsoil. Green tares, where the land is propitious to their growth, would afford a much richer green-manure than buckwheat, but they are too valuable a food to be treated so disdainfully.

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Mr. Louis Beaubien's Advice to Farmers.

"Lay down the whole of your farm in pasture, all, except the piece, which should be a good one, necessary to fill the silo. Take good care of green pasture, ensile your green corn, and enough is said. I promise you prosperity with this simple, this utterly simple system. This style of manage-

ment has been carried out most successfully in France. No grain-crop at all. Litter for the cattle is taken from the forest.

"You will tell me, I know, that you must have a small piece of land in vegetables for the houses, and another in oats for the horses and young stock; a little wheat. True, but these crops you shall only grow on a very small scale, as an exception to the general system. The chief end of your work shall be the establishment and care of the pasture and the fodder-corn. But the pasture must be really good. No! there must be no great field where the cattle get more exercise than fodd, but a good *bite* all over. The corn, for its part, shall be kept clean, and the land well pulverised and stirred from time to time, not forgetting to plaster it. In the autumn previous, you will have manured the piece thoroughly and ploughed it. You will find that you have less work and more profit.

I have a farm at some distance from my residence. As soon as my silo at Outremont is finished, and is in full operation, I intend that the farmer at my off farm shall come and inspect it in all its details. Then he shall have one built for himself, and for his guidance, I shall only give him this advice: Lay down the whole farm in grass, except land enough to grow fodder sufficient to fill thy silo. That is all I require, but do it well." (1)

(From the French.)

The following is from a lecture on Agricultural Education, by Mr. Morton, for forty years editor of the English Agricultural Gazette, an old friend of mine when he was with his father, who managed Lord Ducie's model-farm at Whitfield, Glo'stershire. He knows what he is talking about, if any man does.

A. R. J. F.

You must admit that I ought to be the ideal witness on the subject which is occupying us to night; and I claim to be a very good one, and I am telling my story thus in order to make good my claim:—And I give it for my opinion on a review of all these 40 years—in the interest, not of one class, but, as I firmly believe, in the interest of all—that the best possible preliminary education is needed, not merely to make the boy stronger and more capable as a future farmer, but to fit him for something else as well if that should fail him; to make him a better man, no doubt, within his fields, which it will do—aye! but to enable him to leave them. Why should I, a young man, we will suppose, educated to the very top of those qualifications which the practical man deems all-important, be tied hopelessly to any failing occupation I have chosen, being fit for nothing else?—'Educated! I have been accustomed to my farm from boyhood. I know every acre of it, every tool upon it; every beast and sheep I know from birth to the butcher's shop. I know the soil I work—the plants I grow, the animals I breed and feed and fatten—the management in detail of every one. I can plough and sow, and reap and thresh, I can manage the ewe-flock, the cowhouse, the stable and the pigstye. I can give a drench to a sick beast, and I can see when he wants one. I can wheedle a customer in the market-place, and I can slang him, if I think he needs it. I am a practical man from head to foot. I never read an agricultural journal. Do you think I want the AGRICULTURAL GAZETTE to help me to go into that twenty-acre field and put things straight? I don't want nobody to teach me."

Value of muck.—Professor Goessman finds in fresh muck only one-fourth of one per cent. of nitrogen! I rather think

(1) The above is taken from the report of the Dairymen's Association for the year 1885.