

this means two men can very well attend to and burn out twenty-five to thirty acres each week, provided the weather has been quite dry and the wind blows pretty fresh each day. You would hardly believe how complete a clearance can be made of hard wood stumps by this means. Last year we had a twenty-five acre field in just the right state, and one man in three days burnt almost every stump out of it. But never, under any circumstances, allow the half-and-half plan of setting a few stumps on fire whilst you are ploughing in the field. They will not be attended to or kept going, and the consequence will be that the stumps will almost all be half burned and all the dry and decayed part consumed, whilst the remainder will be quite sound and preserved by the fire from further decay for some years longer; and moreover stumps of roots trouble and annoy you for a long time.

Farming, like all branches of business, must be done right, and with capital, and to the best advantage; and if you grow grass with a good stock to eat it, you suffer; and if for want of stock you grow grain when it ought not to be grown, you suffer. Many in their wisdom would say it served you right, but I know better. Farmers, until they get forehanded, must live, and must grow what their capital enables them to produce, or rather the want of it forces them to grow, and generally such farming is more the misfortune than the fault of the farmer.

C.

## Beet Root and Beet Root Sugar

No. VIII.

This subject is engaging the attention of English farmers, and from the experimental and scientific class it has passed into the hands of some of the best and most successful farmers in England, who are now growing sugar beet by hundreds of acres, and with very satisfactory results.

To show that in previous articles there has been no exaggeration respecting the produce both of the root and the sugar, the reader is requested to note the following extract from a speech made before the Chamber of Agriculture at Cirencester, in England, and which is taken from the *Agricultural Gazette*. After a lecture had been delivered on the subject by Professor Church, of the Royal Agricultural College, and the usual discussion arose, Mr. Edmund Ruck, one of the best and most successful farmers in England, stated to the following effect:

"In consequence of the several articles on the subject of beet root growing which have been going the round of the British press, he (Mr. Ruck) went to Lavenham, where Mr. Duncan, the great sugar refiner of London has erected some works for the manufacture of beet root sugar. He found there a very expensive and extensive set of buildings and machinery. Mr. Duncan had

been giving the farmers of that district one pound per ton for beet, delivered at the manufactory, and the farmers took back the pulp at 13s. per ton. The crops raised ran from sixteen to twenty-four tons per acre." [I have only reckoned on ten tons per acre in Canada.] "In the third week of April last he (Mr. Ruck) went to France, with the object of examining their mode of manufacturing, and enquiring as to the profits derived from it. He found that a ton of beet would yield twenty gallons of spirit, and that the pulp would pay for the expenses of manufacture and the interest of the money employed. This spirit would sell in England at two shillings per gallon (over and above the amount of the duty), so that there is a margin of 2s. per gallon, or £2 per ton.

"In most establishments on a large scale in France, both sugar and spirit are made, and Douai is the great sugar market of France. He was surprised to find that good land was sold generally at £100 per acre in France; but in within five miles of a manufactory, then the price rose to from £135 to £140 per acre. It was not unusual to cart beet seven miles to a manufactory, and if sent by boat on a canal it was sometimes taken not less than thirty miles. He found that beet had in some cases been grown for fifteen years in succession, and a yield of thirty tons per acre would give, at £1 per ton, £30 per acre to the farmer, and an equal sum to the manufacturers. His hearers must bear in mind that the pulp will pay all expenses as well as interest on the capital employed in manufacturing. There are two kinds of beet principally planted, viz., the Colet Rose, a red beet (but not the one usually planted in gardens for salad), and the White Silesian, the last named yielding the greatest percentage of sugar, but only about two-thirds the weight per acre of the former. Great attention was required not to allow their beet to grow coarse, and the only safe way to prevent this is to have the plants very thick in the ground, say in drills sixteen inches wide, with the plants cut out at eight inches apart. The three principal systems of manufacture are the Champonois, Le Plé, and the Colette. The last much resembled cider making here (in England), on a very large scale. In the Le Plé system you take out the saccharine matter (sugar) by applications of hot water. The extraction of the sugar and the spirit from the roots was too elaborate a process for him to enter into. The value of the pulp per ton varies very little in the two systems, but that from the Colette will keep any number of years, if properly stored, and the pressed pulp and "cossettes" from the Le Plé system will keep for a year or two. \* \* \* Mr. Ruck said that it had been proved to his satisfaction from analysis of beet grown abroad and those grown in England, that no country had a better soil or climate than England for growing them profitably. The idea that a succession of crops of beet being

taken off the land is injurious to it, was in his opinion a complete delusion."

Now the foregoing evidence, coming from Mr. Ruck, cannot be too highly valued. He and his family farm most extensively and successfully; they have raised large quantities of sugar beet, and it was only a few weeks ago that they exhibited their crops of beet (among other crops) to a committee of the first agriculturists in England, who were highly gratified with them, and who in the speeches which the members of the committee made after the entertainment which followed the exhibition and examination of the Messrs. Ruck's farm, were very complimentary to those gentlemen on the results of their labours.

It will thus be seen that in the previous articles given on this subject I have carefully kept *under the mark*, and have not by any means given a flattering statement of the profits which may be relied on from the growth of beet root for sugar in Canada.

VECTIS.

## Leached Ashes as a Fertilizer.

An exchange reports the remarks of Mr. Quimby at a meeting of the Rochester Farmers' Club, as follows: "Leached ashes are good for all crops—for corn in the hill, and especially valuable as top dressing for wheat and clover fields, and meadows generally. During the past three years he had drawn 10,000 bushels on his farm, which he spread on land at the rate of 200 to 300 bushels per acre. He covered forty acres in this way, and meant to ash the entire farm. They had doubled his wheat crop and wonderfully increased his crop of grasses, especially clover. Land which had been run down too much to seed with clover, produced heavy crops when manured with leached ashes. He got a good catch of clover where he applied leached ashes last year on his wheat and rye, while the balance was a failure. He could see a great difference in the growing wheat where the land was manured with ashes and where it was not."

## Turnips vs. Wheat.

In one of my wanderings, a year since, during a leisure time, I chanced to receive an invitation to spend a few days with a friend to the north of Guelph, and was told that the farmers in that locality were far ahead of many other sections of the country in the growth of turnips and fattening stock. I could not at that time leave home, but this autumn, having some spare time, and also some business in that locality, I availed myself of the invitation to pay my promised visit. One great attraction was that my friend Mr. S. himself was a great lover of grade stock, and farmed 190 acres of cleared land, and grew large quantities of turnips, with which he not only fed the growing cattle, but also fattened about ten