

in the spring—strange to say, three-fourths of them were green, and had every appearance of growing. After this one ploughing, oats, not black Tartars I regret to say, were sown, and harrowed in with the *revolving harrow*, sown with grass-seeds, rolled across the ridges, and there they are to speak for themselves and for the benefits to be derived from a folding of sheep on light land.

*Hay.*—Thirteen thousand carloads of hay from the Western States entered the Boston market, I am told, between the 1st May and the 1st August! If this be the case, I imagine the price of that article will not be very high, in spite of the poorish crop in this province. At Saint-Césaire, I heard, from trustworthy people, that the farmers of that neighbourhood were devoting themselves entirely to the production of hay, having in the autumn of 1885 sold off the greater part of their cow-stock at ludicrously low prices. Incredible as it may seem, cows were selling at that time for from *four dollars to fifteen dollars* a piece. Not being a prophet, I cannot predict what the end of this devotion to one crop will be; but it is pretty clear that, without manure, the land, however good it may be, cannot go on producing hay for ever, and a pretty price will have to be paid for re-stocking the farm when the time of exhaustion has arrived. Moreover, this year, as sometimes happens, the hay in many places was not out until the seed of the timothy was ripe: a crop of seed-timothy scourges the land quite as much as a crop of oats of the same weight!

A curious reason was given me for not growing the large *Rawdon clover*: it produces such a bulky crop that there is great difficulty in making it! Pooh, cut it early, turn it, and put it into cock.

ARTHUR R. JENNER FUST.

OUR ENGRAVINGS.

- English Hackney Mare.*—See article, p. 134.
- Hay gatherer.*—See article, p. 142.
- Rural New Yorker's new barn.*—See article, p. 133.

Dominion and Provincial Exhibition, 1886.

I see by the papers that the above exhibition is to be held at Sherbrooke this year, from the 23rd Sept. to the 2nd Oct. both days inclusive. I have no doubt that the show will prove very attractive. If it fail, it will not be for want of variety. There are prizes offered for the drollest things: for the best Marmot or Woodchuck; for the best Flying-squirrel; for the best Lady-driver!!! However, I dare say the committee of management know how to please the public of their district.

*Roots on heavy land.*—The preparation of heavy land for roots should begin immediately after harvest. A stubble of some kind, free, if possible, from couch-grass and other root-weeds should be chosen for the purpose. First, pass the cultivator both ways across the land, and follow this operation with the harrows and roller until all the weeds are free from earth: after a day or two in the hot sun of August, they will cease to be capable of any further growth.

Having prepared sufficient dung at the rate of, say, fifteen tons to the acre, spread it and plough it in with a sound furrow of seven inches by ten. Draw out the water furrows carefully, taking care there are plenty of them, and keep all cattle out of the field during the remainder of the autumn.

When the land is dry enough to work in the spring, your main object should be to get all the seed-weeds to start into growth before seed-time. To this end, pass the grubber

along the ridges, and, two or three days afterwards, harrow in the same direction. If the autumn furrow was made in proper form, you will find the land as fine as meal at the top. Spring ploughing will give you plenty of clods on heavy land, whereas the treatment I recommend—called with us in England, sowing on the stale furrow—will produce the finest possible seed-bed.

What shall we sow in the way of roots? I say, mangolds, cabbages, and swedes. Not parsnips, for they lie too long in the ground before they come up; and though white Belgian carrots would do well, they are expensive to hoe.

*Mangolds.*—Supposing that your land is ploughed into ten foot ridges, and that the outside rows are to be kept one foot from the open furrows on each side, you will have on each ridge four rows two feet apart, and the same distance will intervene between the outside rows of each pair of ridges. As I prefer a thick crop of moderate sized roots to a thin crop of large roots, I think this space will be enough for all purposes. Having steeped and sprouted the seed, mix it with sand until dry enough to pass through the sower easily. I saw this spring the Comet junior seed drill deposit steeped carrot, parsnip and mangold-seed, beautifully. Mangolds should be sown shallow—not more than three-fourths of an inch deep, and got into the ground as early as possible. Four pounds of seed per acre will be enough.

*Cabbages.*—If cabbage seed could be bought here as cheaply as in England, I should sow the seed where it is to remain just as they do there. But, I see the price in the seedsmen's catalogue is two dollars forty cents a pound, and as at least two pounds an acre would be required, we must be content to make a seed bed, and transplant the crop as usual. A cure for the cabbage caterpillar? plant not less than a couple of thousand cabbages in a piece. (1)

*Swedes.*—May be sown in the same way as mangolds—unsteeped of course. Three to three and a half pounds of seed to the acre will not be found too much on heavy land.

Well, we will suppose the seed sown, the plants up, and nearly ready for singling. How shall we begin the cultivation. What do you say to passing a pair of harrows across the rows? We always do it, when roots are sown on the flat, and a good start it makes. Of course, if you let your plants get eight or nine inches high before beginning the cleaning, you will smother them by harrowing; but if you harrow at the proper time, when the plants are not more than three or four inches high, no damage will ensue from the operation.

The rest of the work is simple enough: horse-hoe frequently, thin and hand-hoe as usual.

But, perhaps, you don't like sowing on the flat; you prefer the drill-system. All right; it is easy enough, and less dung will be required, which is certainly a desideratum. Belgian carrots, too, can be grown on this plan: another recommendation.

After the grubbing, harrowing, &c., mentioned above, the land should be ploughed; grub and harrow until fit to drill, drill up at twenty-four to twenty-seven inches; spread the dung; split the drills; draw the water-furrows; and shut up the field till spring.

When the dust begins to fly, at the end of April or the beginning of May, send the harrows along the drills, taking care that the horses do not step on the drills; re-shape them with the double-mouldboard plough; and they are ready for sowing.

I beg to say that I have practised both these plans myself, and of the two I prefer the latter, though both answer admirably. I do not like earthing up anything, except celery, but in the case of roots on heavy land it might be as well to

(1) The Savoy cabbage, this season seems to be free from the green caterpillars, while the Saint-Denis is devoured. A. R. J. F.