

improved soils; and this is by no means a statement taken from "current report," but was told the writer by one of the well known family of the Overmans, extensive tenants on the estate of the Earl of Leicester, who were actually paying the high rents above mentioned at the time—1856.

Chalk.—In the Southern and South-Eastern counties of England, as well as in East-Anglia, in fact, wherever the chalk crops out near the surface, that form of lime is used on the fallows, in the autumn, at the rate of from 20 to 25 one-horse loads an acre. A very little frost is required to make the chalk "run," as it is called, and it has a marvellous effect on all soils; light land it makes "sweeter," heavy land it makes more easily workable.

As a general rule, lime, in any form, may be considered more as a *cooking* agent, than as an actual plant-food. Though some marls contain a notable percentage of phosphoric acid, the beneficial action of lime is due to the chemical actions which it performs in the soil, for, except in the very poorest of soils, there is almost invariably enough lime present in all decently farmed land to supply plants with all that is needed by them for their growth and maturation. It is, as we said just now, its work in promoting the decomposition of vegetable matter and in aiding the formation of nitrates in the soil that renders lime so valuable to the farmer.

As for the application of lime, we object to the ploughing of it under. We prefer the old Scotch plan of slaking it, spreading it on the ploughed land, and then harrowing it in; and that, for the reason that lime sinks quite fast enough out of reach without being buried in the first instance.

Root-crops.—We were happy to observe, last summer, a very general increase in the tendency to devote a larger proportion of land to the growth of root-crops. Our scope of observation did not extend over a very large area, being principally confined to the neighbourhood of Montreal, St. Anne de Bellevue, etc.; but, though our travels were limited, we saw enough to convince us that, whether owing to the labours of the Provincial Department of Agriculture, to the exertions of the lecturers in its employment, or to the influence of the Farmer's Clubs and the Agricultural Associations in general, a very great improvement is taking

place in the farming of the outlying portions of the Island of Montreal. True, we saw a good deal of bad farming, of very bad farming indeed; but, upon the whole, the example of the Drummonds and the Buchanans, on the one side, of the Dawes and the Refords on the other, is, at last, exercising a very great influence on the whole district.

But, though we warmly congratulate our neighbours on the improvement visible on their farms, we must confess that, in some points, they are not so far advanced as they might be in the cultivation of the root-crop: we mean, in the singling of the plants. Indeed, the whole process and cost of root-growing are, as a rule, greatly overrated. Of course, we cannot expect our people, whether farmers or laborers, to do the work as quickly and as neatly as the men in the old country do it, for where the Canadian singles one acre, the Scot or the Englishman, probably singles at least a dozen, and in this, as in other things, practice really does make perfect. The contrast is indeed very great, according to some; for whereas one writer says that a first-rate man with the hoe takes 6 days, of 12 hours each, to single an acre of mangels, Mr. Stephens, in his "Book of the Farm" states that "women in his employment often single half a Scotch acre in a day!" (1) No wonder, then, that the cost of working the sugar-beet crop proved so costly as to daunt the pluck of some of our farmers, \$14.00 to \$16.00 an acre being the expense of only one part of the process.

As we have said before, if the regular price paid for singling turnips, swedes, and mangels in Kent, the dearest waged county in England, is \$1.80 an acre, surely it can be done here for \$3.00; even Mr. James Drummond, living, as our readers know, within a mile of Montreal, only pays \$3.50 an acre for the work, high though the wages there are. Mr. Séraphin Guèvremont, of Sorel, pays for singling mangels, \$3.00, for swedes, \$2.40, and for the "going over again," a dollar.

HOED-CROPS AND THEIR PLACE IN AGRICULTURE.

BY THE EDITOR.

Many of the correspondents of the American Agricultural papers assert, that cultivation can be substituted for manure. This is a reverting to the

(1) The Scotch acre is 6 roods in superficies. Ed.