

OATS.—There is much to be made on this crop, especially by the class of farmers who sell by measure, have their lands overrun with thistles, and wish to propagate them by growing a late ripening crop. Of late much interest is being taken in the matter of introducing new varieties of this grain, supposed to be of more productive quality than the old sorts, but notwithstanding the stories told by interested parties of the large yields given by some of the new kinds, as the Surprise, Norway, Excelsior, and others, we have doubts if any of them are better even in this respect than some of the old sorts, while some of them, at best, are of very light weight in proportion to their bulk. Oats are a crop always sure to give large returns on good soils with proper culture—things seldom accorded them.

POTATOES will probably not be grown to such an excess as they were last year, resulting in such very low prices. The very early sorts, if grown near the cities and towns, and planted sufficiently early to mature by the end of June or first of July, are most profitable, though rather too troublesome a crop for the better class of large farmers, who will naturally value their time higher than to be peddling out early potatoes in the market. Arrangements might, however, be made to sell the crop in bulk to some enterprising dealer, who will take the trouble of doing the marketing.

CORN.—Those who can grow corn to advantage should not neglect to get their land for it into good condition and fine tilth as early as possible. Good crops, if not the very best, are most certain on a strong stiff sod or clover ley, first heavily spread with barn-yard manure, and then ploughed under somewhat shallowly, say 4 to 6 inches, and planted to corn not later than the 24th of May. Corn requires at least 100 days from the time of planting to fully ripen, under favourable circumstances, and it is most desirable to select varieties that will ripen in that time if possible. By care in selecting the earliest ripening ears each season, and planting only the seed from them, there is no doubt something might be done towards obtaining earlier maturity in this crop.

CLOVER AND GRASSES.—Clover seed is scarce and expensive, yet it will be poor policy to neglect sowing, or to give but a thin seeding, on that account. The most of failures to get a stand we think due partly to want of using enough good sound seed, but also greatly to the want of having the land in good tilth, and neglect to cover the seed when sown. Barley is undoubtedly the best crop on which to

sow clover, as the land given to this crop is usually the cleanest, richest, and best prepared of any. Sow the seed immediately after the last harrowing in of the barley, and cover by dragging once over the surface, crosswise of the last harrowing, a bush harrow made of the tops of some trees, bound together at one end, and spreading out at the other; a slight chain and whiffletree is attached, and one horse does the work. This plan will cover the seed lightly, which is all that is needed. A smart rain coming on immediately after the clover seed is sown will often cover it enough, if the soil is friable and in good tilth. If it is desired to make a strong wheat soil into meadow land, timothy alone, or with very little clover, is best, and it can then be sown either on winter wheat immediately after, or just when the snow melts, or on a spring crop of grain directly after seeding. No artificial covering is needed for timothy. For permanent pasturage to be used for stock, we would much prefer leaving out both timothy and red clover, and sowing a mixture of several kinds of grass seeds, with the addition of some five or six pounds per acre of the small Alsike clover. In this case the grass seed must either be sown on a barley crop, or on land specially prepared exclusively for the purpose, and be covered in with the harrow.

Stock must now be well looked after, and have some roots, in order to prepare them for turning to grass when it is ready, and so prevent scouring. The horses must be kept on dry provender, and in solid condition, to enable them to stand the hard spring work. Cows should not be allowed to roam about the yards, except for two or three hours a day when dry, nor sheep to get drenched in rain storms. Sheep generally get the first to grass, cattle after, and horses not till their work-days are over. Do not be in too much of a hurry to get the spring ploughing done, and so keep men and horses at work in the rain; and especially avoid turning over the soil when it is so wet as to pack as it leaves the mould-board.

Science and Farming.

In a late article under the head of "What has science done for the farm?" a short history, or rather a very brief sketch, was given of the way in which phosphatic manures came to be introduced into England. Things are not yet arrived at that state in Canadian farming when more than a slight sketch is admissible on these subjects. Matters are progressing, however; crops are failing, assistance to the farmer is demanded, and assist-

ance can only be had through the aid of science.

While the search after phosphates was progressing, until not only the shambles, and ancient deposits of bones, but even the old battle fields, were diligently searched and rifled of their contents, and all ground up and converted into superphosphate, or simple bone dust, science had shown that there were other sources of ammonia to be found than the guano islands. The liquids resulting from the distillations of gas works were found to be specially rich in this substance, and the conversion of these liquids into ammonia, in one shape or another, now forms an immense business throughout the civilized world, wherever gas is used as a means of light.

The immense plains in different parts of the world which yield nitrate of soda, and also the various sources of nitrate of potash, were most industriously laid under contribution. The waste of every animal production was equally searched for and husbanded; old cloth and woollen goods gone too far for the shoddy mill; the refuse of the shoddy mill itself; the remains and refuse of slaughter houses; enormous quantities of the refuse of fish after the extraction of the oil; every animal substance which by the aid of chemicals could be put into such a state as to be concentrated and conveyed, as an article of merchandise, from one point to another; all are now utilized, and by scientific aid are converted to the use of the British and European farmer. But the mainstay and aid to the manufacturer of chemical manures has been sulphuric acid; this, from its solvent action and powerful affinities, and from its cheapness, is employed on every occasion, and the sulphur which was formerly used chiefly for the manufacture of gunpowder, and the destruction of human life in war, is now the beneficent agent from which the present fertility of England is obtained.

Fifty years ago, sulphuric acid was an expensive chemical agent, useable only for special chemical purposes, and considered cheap at ten times its present price. Now, it is an object of every-day use, not only in the chemical laboratory, but in all manufactories, and on many farms, and the home manufacture of superphosphates is now very common in Britain. Indeed, no moderate farm of any pretension is to be found where its use is unknown. It was at one time manipulated by chemists only, and even by them with dread. Now it is used on a large scale by men only one degree above common labourers, and by its potent aid matters are unlocked from stony substances totally inert in their natural state, but which afford the highest possible assistance to the farm when separated and rendered soluble. Formerly the only source of potash was the ashes of burnt wood; now the feldspar which is so plenty in some forms, and indeed in most forms of granite rock, is profitably used to obtain potash manures. Almost all the soda of commerce is obtained by the action of sulphuric acid on common