

## Seeds and how to Sow them.

It is quite useless, indeed it is grossly absurd, to prepare land to incur trouble and expense, without duly and even very carefully attending to the Seed we are going to sow. The Sort, the genuineness, the soundness, are all matters to be attended to if we mean to avoid mortification and loss. —Cobbett

The season is opportune for a few observations on Seeds and how to sow them. Whoever wishes to raise good crops of any kind, must not only be very careful that he perform his own part of the work properly, but that he also propagate the right sort of plants: these are all most important points. Nature does very much, but she will not do all, and, therefore, nothing should be left to chance. It has been well said, "He who trusts to chance for a crop deserves none, and he generally gets what he deserves." Propagation presents a wide field of investigation. Nearly every plant may be multiplied by means of suckers, offsets, layers, and cuttings. At present, however, we purpose limiting our enquiries to SEEDS, and it is notorious that nearly all plants, from a simple radish, up to the oak itself, can be propagated by Seed. Should the soil be cold and wet, it probably wants draining; and if a paying crop is desired, it must be drained accordingly. It wants in every case deep plowing or digging, and thorough pulverising; and without ample manuring, unless the soil be naturally very rich and the land new, it is quite useless to attempt almost any kind of crop, with a prospect of complete success. Then again before a crop is realized there must be thorough cultivation. Weeds must, at any expense of labour, be eradicated and the soil stirred, otherwise they will absorb the best portion of its fertility. Care and labour, and skill are thus all equally indispensable, and without all these, the best seed ever grown may be worse than wasted.

When all these preliminaries have been attended to, the Sower must not only ascertain that he gets good Seed, fresh and sound, but he must put it in the ground in a proper manner, and at the proper time. He must not sow too early, when the ground is wet and cold, when it may be frost-killed, or when the moist seed will either rot, or never germinate at all. Neither must he be too late when the soil wants moisture, and when the seed is apt to shrivel up and die,—in equal danger from just the opposite extreme.

The sort of seed is first to be considered. With regard to beans, peas, and some others, there cannot be much mistake, the eye is here a pretty sure guide. But as to cabbages, onions, turnips, cauliflower and many more the eye is no guide whatever. Then come next in order the kinds, and their genuineness. It may be rape in place of cabbage, mustard in place of swedish turnips and more than one half of it too old to germinate, or it may be degenerate, mixed or hybrid, true to no sort whatever, or it may be late in place of early cabbage; or vice versa and so forth. You may thus have plants of a kind but not what you want, or what will pay to raise. It is, therefore, necessary that the utmost circumspection be used in the purchase of seeds.

The seed business is a peculiar one. No dealer can grow, even if he grows at all more than a very small portion of the immense variety he sells. Seed growing is a specialty requiring great care and skill. Even with the finest selected stocks it is a very precarious operation to raise seeds at once properly ripened and true to sort. The danger of hybridizing is always great, indeed so much so that we would hardly advise amateurs or others, not thoroughly conversant with the proper methods to attempt raising even their own supplies. They incur more risk than in purchasing from a respectable dealer, and possibly even more cost.

In this part of the Province, at least, the seed business is in reliable hands, that is to say—as far as known integrity and long experience can insure proper results—they may be relied on. For, it is obvious, the dealers' interests are quite as much concerned in vending a good article, as the customers' in getting it; and no one in his senses would sell seeds knowing the article to be bad—hardly even if doubtful. But the seed-man must buy from others, these again have to purchase from a variety of different sources; and thus with all possible care and vigilance the dealer may be deceived himself. Mere speculators, however, who have no local habitation or name, and even parties who advertise at very low rates, should be given a wide berth. The best article cannot be sold at a low figure.

But altogether irrespective of the sources of supplies, there are certain means of verifying their utility; so far at least as the soundness is concerned there is an unfailing test: of the sorts—the genuine-

ness to name; none whatever. Here purchasers must test, first having faith in those with whom they deal. Every kind of really fresh well-ripened sound seed will sink in water. Unripeness, mouldiness, blight, age is what have to be guarded against. The vitality of such is of course gone, but all these will float in water, and no seed that floats in water should ever be sown.

In testing seeds use tepid water, putting a small quantity into a glass tumbler, where top and bottom can both be seen, turnips, cabbages, onion, radish and many others will, if good, sink at once. Lettuce, melon, cucumber, &c., require a few minutes. The winged seeds such as parsnips and carrot require a little working with the hand before they sink. Beets and mangolds are in shells, each containing four or five seeds and with them the water test is perhaps not quite so conclusive, but even here, if really good, the shells will sink in about an hour. If a hundred seeds are counted, fifty sink, and fifty swim, of course half are bad if twenty swim, and eighty sink twenty per cent. are bad and so on.

Last season we subjected several pounds of onion seed to the water test. It was very good and only a small portion floated. We, however, rejected this portion, and we found this good result; that we had scarcely any thick necks or scallions. In all previous seasons before adopting this method of purifying the seed, we had an abundant crop of scallions.

There are various other tests, but we believe none so simple and certain as water. If carefully preserved from air, damp, and frost, many kinds of garden and farm seeds will keep good for several years. Beans, peas, carrots, parsnips, lose vitality after one year; and a good many including the onion, after two years. We should, however, always prefer seeds of the previous season's growth.

In sowing then—after the light or bad is thus separated from the good—it will be useful to allow moist seeds to be well soaked in tepid water before sowing. It very much hastens their germination. They will dry in the sun sufficiently to handle in an hour or two, but if mixed with a few handfuls of plaster, dry ashes, or fine bone dust, even this is unnecessary.

The general rule is to sow to a depth proportioned to the size and habit of the seed. Carrots, beets, peas, beans, &c., require to be covered from one to half an inch in depth; and the very small, such as a few sorts of sweet herbs and flower seeds, that the surface be raked very smooth, then sown thereon and covered by the smaller portion of the fine mould from asiere. All seeds should be afterwards rolled, many of the more delicate also require that the hand be shaded for a few days from the noon-day sun. Valuable hints are given in most of the seedmen's lists, and it is an excellent plan to affix printed instructions upon each kind. These instructions of course vary somewhat, but in substance amount to this: properly prepare the soil, drain, dig deep, use abundance of suitable manures, sow properly, at the proper season, and afterwards thoroughly cultivate.

## New Farm Products.

It is well that farmers should subject to actual experiment such products as they find attracting attention and giving good results elsewhere. At first it would not be wise to embark largely in such things, but cautiously, feeling the way, as circumstances warrant. The Kohl Rabi or turnip cabbage is a comparatively new crop that merits notice. It is hardy and nutritious well suited to milch cows, sheep, and stock in general. The same cultivation as for turnips is suited to it, but it requires to be sown earlier. Sorghum or Chinese Sugar Cane has been pretty thoroughly tested in the Northern States, and should have a full and fair trial in Canada. There is no doubt it can be raised here profitably as a provender crop for cattle both for summer and winter use. It is also next to certain that it would pay to sow it for molasses, but whether the juice produced so far north, will make good granulated sugar, remains to be decided by actual experiment. It is very desirable that this crop should have a thorough trial, as if successful, it would be a valuable acquisition. Flax, though not a new product by any means, has been so little tried in this country that its culture here may be regarded as a novelty. The present high price of cotton fabrics, the upward tendency of wool, the excellent market for flax of which there is every prospect and the success of such experiments as have been made, should encourage our farmers to embark in the cultivation of this useful product. Turnip

culture is still too much of a novelty in many parts of the country. It is remarkable how ignorant many Canadian farmers are of what has come to be deservedly regarded as "the sweet anchor of British husbandry." Mangolds too, though common and much prized in the Old World, are but little known in the New. Yet they are very valuable as a late winter feed for cattle, and especially for milch cows. Carrots are common enough as a garden vegetable, but very few of our farmers are acquainted with them as a field crop, and as a winter food for horses. They deserve to be far more widely grown as a farm product. Hungarian Grass yields largely, and is much esteemed by many who have used it for horse fodder, though some think the seeds injurious. It is worthy of a fuller trial, to say the least of it. Indian Corn as a forage crop is but little cultivated, yet it produces more weight of feed per acre, than any other plant used for mowing purposes. For milch cows, when the pastures are bare in the summer and fall, it is unequalled. Vetches, Lucerne, and Rape, merit culture as green crops to be repeatedly mowed, or fed off by sheep, penned with movable hurdles. If our readers will grow some of these crops on our recommendation, we are sure they will not repent of it.

## Culture of Lucerne in France.

To the Editor of THE CANADA FARMER:

SIR.—I have read the articles on Lucerne, published in your papers of the 1st and 15th of March, and having had great experience in the culture of this valuable plant in France, I venture to offer a few remarks on the way it is grown in that country. The soil suitable for lucerne is a deep rich sand or sandy loam. It is useless to sow it on clay; it will never come to anything on such soil, even a rich sand with clay subsoil is not suited to it, unless well underdrained. Its roots penetrate very deep and as soon as they reach an impervious subsoil and consequently water, the plant will become sickly, and its yield diminish. Lucerne should always follow a well manured and well cleaned root crop, and for which deep ploughing has not been spared; it is generally sown with a crop of spring grain (barley is the best.) I used to put in about 10 pounds of seed to the acre. Some farmers sow as much as 15 pounds to the acre, and are well pleased with the result. When it is sown too thin the stocks are apt to be very large and had—at any rate 9 to 10 pounds should be the minimum. The field crop is never heavy, even on the best soils, and some farmers add 4 or 5 pounds of clover seed to the acre, with a view to increase the crop of the first year, but the lucerne will thrive better without this addition.

The lucerne fields are well harrowed in spring, (the more the heads are torn and divided by the harrow the better,) then plastered at the rate of 200 to 250 pounds to the acre. In France lucerne is generally ready to cut for the first time about the 20th of May, and twice again in the course of the summer, after which it affords a good pasture until winter sets in. These three cuttings will average on good land 4 to 5 tons to the acre, of most excellent hay. Farm horses do better on this than on any other hay I know of. The hay of the third cutting is fine and green and commonly kept for sheep and young cattle. On my arrival in this country, two years ago, it struck me that lucerne ought to do well on some farms which are clover sick, from this plant having been grown at too short intervals and without a proper rotation of crops. I got some seed from France and sowed some for a trial, on a patch which had not been suitably prepared; it came up well enough, but was nearly all burned up by the very dry summer of 1862. Last year I sowed another little patch after carrots and with buckwheat; it has done very well, except that a few of the smallest plants have been frozen, for which reason I believe it is better to sow it early in spring, that it may have a better chance of standing the first winter. Lucerne is in its prime the 3rd 4th and 5th years; I used to break it up the 7th or 8th year, but have known a field last 19 years. It is a pity this excellent plant is not better known in Canada. It would, I am convinced, soon be appreciated, and grown extensively.

It is fit to cut as soon as the flower appears, and this is two or three weeks before clover is ready. This alone is an immense advantage and the drought of summer affects it very little.

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 Co. of Norfolk, C. W., April 21, 1864. }