

We have said that it is a part of the character of a species to produce the same from seed. This characteristic is retained even where the sport (as gardeners term it) into numberless varieties is greatest. Thus, to return to cherries, the Kentish or common pie-cherry is one species, and the small black mazzard another, and although a great number of varieties of each of these species have been produced, yet there is always the likeness of the species retained. From the first we may have the large and rich Mayduke, and from the last the sweet and luscious Black-Hearts; but a glance will show us that the duke cherries retain the distinct dark foliage, and, in the fruit, something of the same flavour, shape and colour as the original species; and the heart cherries the broad leaves and lofty growth of the mazzard. So too, the currant and gooseberry are different species of the same genus; but though the English gooseberry growers have raised thousands of new varieties of this fruit, and shown them as large as hens' eggs, and of every variety of form and colour, yet their efforts with the gooseberry have not produced anything resembling the common currant.

Why do not varieties produce the same from seed? Why if we plant the stone of a Green Gage plum, will it not always produce a Green Gage? This is always a puzzling question to the practical gardener, while his every day experience forces him to assent to the fact.

We are not sure that the vegetable physiologists will undertake to answer this query fully. But in the meantime we can throw some light on the subject.

It will be remembered that our garden varieties of fruits are not natural forms. They are the artificial productions of our culture. They have always a tendency to improve, but they have also another and a stronger tendency to return to a natural, or wild state. "There can be no doubt," says Dr. Ludley, "that if the arts of cultivation were abandoned for only a few years, all the annual varieties of plants in our gardens would disappear and be replaced by a few original wild forms." Between these two tendencies, therefore, the one derived from nature, and the other impressed by culture, it is easily seen how little likely is the progeny of varieties always to reappear in the same form.

Again, our American farmers, who raise a number of kinds of Indian corn, very well know that, if they wish to keep the sorts distinct, they must grow them in different fields. Without this precaution they find on planting the seeds produced on the yellow corn plants, that they have the next season a progeny, not of yellow corn alone, but composed of every colour and size, yellow, white and black, large and small, upon the farm. Now many of the varieties of fruit trees have a similar power of intermixing with each other while in blossom, by the dust or pollen of their flowers, carried through the air, by the action of bees and other causes. It will readily occur to the reader, in considering this fact, what an influence our custom of planting the different varieties of plum or of cherry together in a garden or orchard, must have upon the constancy of habit in the seedlings of such fruit.

But there is still another reason for this habit so perplexing to the novice, who, having tasted a luscious fruit, plants, watches and rears its seedling, to find it perhaps, wholly different in most respects. This is the influence of grafting. Among the great number of seedling fruits produced in the United States, there is found occasionally a variety, perhaps a plum, or a peach, which will nearly always reproduce itself from seed. From some fortunate circumstance in its origin, unknown to us, this sort, in becoming improved, still retains strongly this habit of the natural or wild form, and its seeds produce the same. We can call to mind several examples of this: fine fruit trees whose seeds have established the reputation in their neighbourhood of fidelity to the sort. But when a graft is taken from one of these trees, and placed upon another stock, this grafted tree is found to lose its singular power of producing the same by seed, and becomes like all other worked trees. The stock exercises some, as yet, unexplained power, in dissolving the strong natural habit of the variety, and it becomes like its fellows, subject to the laws of its artificial life.

When we desire to raise new varieties of fruit, the common practice is to collect the seeds of the finest table fruits—those sorts whose merits are every where acknowledged to be the highest. In proceeding thus we are all pretty well aware, that the chances are generally a hundred to one against our obtaining any new variety of excellence.

In our next number, a complete description of the art of Grafting and Budding will be given, which, by the help of wood cuts,

will make the thing so plain, that we trust we shall see the good results of the diffusion of such useful information, in the improvement and renovation of many an old good-for-nothing orchard in the country (too many of which we could easily point out), as well as in the planting out of numerous young orchards. It is a common opinion, and many cunning old grafters endeavour to keep it up, that none but practiced hands can perform this operation. This is a gross mistake: all that is required is to read some good treatise, or description, and then exercise a little ingenuity.

#### TO CORRESPONDENTS.

M. S. We will make inquiries, and give you the information in our next number.

The remarks of our Markham Correspondent, on Letters, are very good. We are sorry they came too late for insertion in this number. It is strange that respectable persons can be found to encourage these nuisances. They surely do not see them in their proper light, or they would not for a moment allow their children to engage in practices so demoralising.

J. J. B., Thorold, will not forget his promise. Could he not form a club of 12? Be good enough to try.

E. W. B., Cawthra, received. May we not ask him the same question? We have no doubt he will be satisfied.

W. H., Mosa, received: we did not get your letter in time to acknowledge it in our last number.

J. J., Paris, received. Please read the article below.

T. G., Kingston, received, with its contents. The 12 copies will be sent, and also a few extra copies of the first number, which T. G. will please distribute.

J. P. P., Cambridge, received. The back Numbers will be sent.

Other persons, who have sent us their names and subscriptions, will know we have received their letters, by our sending them the subscription numbers. It would consume too much space to notice all letters; therefore we shall only acknowledge such as request it, or contain something peculiar.

### CANADA FARMER.

February 26, 1847.

We are gradually receiving the names of Subscribers to our paper, but not in such numbers, or so fast as we should like to see them. We feel very well satisfied that when the character and merits of our journal become known, it will receive that support and which the important interests we advocate, demand for it. There are more than three hundred townships in Canada West, and if only one dozen names were sent us from each of these townships, we should be able to go along smoothly in our career, and could afford to lay out a much larger amount upon the embellishment and improvement of the paper, than we otherwise dare venture to do, thus greatly enhancing its value to the reader. It will surely not be very difficult to find a dozen persons in each township who can read, and who wish to read, and are willing to pay one dollar for the privilege of reading a paper devoted to the especial purpose of informing, improving, and pleasing them, and of ascertaining, explaining, and advocating their interests. Only let a few persons of that class, which we trust is to be found in every township, and is increasing daily, who know the advantage of a ready communication of useful knowledge to the farmers of the country, exert themselves in their own neighborhoods, and our desire will be accomplished. Several Clubs have been already formed through the zeal of two or three individuals, in the townships adjoining this city, and we hear of others in progress at a distance. By these means the paper is obtained at a price so low, in comparison with other publications, and so disproportioned to the expense of carrying it on, that nothing

but an extensive circulation can save us from loss. Our friends, therefore, and those who wish to see a respectable farmer's journal flourishing on Canadian soil, will please remember the necessary conditions. The back numbers can be supplied to subscribers, and it is desirable that all subscriptions should commence with the first, as we shall not continue the publication more than a year unless we obtain a sufficient number of subscribers to exhaust our present edition. We have heard of some cases in which our terms have been misunderstood. Single subscribers must send us seven shillings and sixpence. We have received a few letters containing only 1 dollar. If the writers mean to take the paper for a year, they must send the balance or the names of 11 subscribers more. We may remark that we do not require subscribers who transmit us the money by post, to pay postage. Some to whom we sent the first number have imagined that if they did not return it, they would become subscribers, but our terms are in advance, and we must therefore hear from them.

#### CANADIAN WHITE PEA.

We have heard of a great many kinds of peas of various excellence, as to quality and yield, but in our own experience, we have seen nothing to equal the common White Pea. It is the only kind we have met with that is suitable for making that delicious, wholesome, nutritious and cheap dish, Pea-Soup. We have eaten soup made of other varieties, but it was strong and disagreeable. It would appear from the following, which we clip from an Exchange paper, that the White Pea is most sought after for exportation, and is considered the best by Montreal dealers. If so, it will be good policy to cultivate this variety in preference to others. The great evil now is, that our farmers allow the different varieties to get mixed. We have counted as many as six in one handful taken out of a farmer's bag in our market. This all arises from negligence, and besides the evil of not ripening at the same time, some kinds shelling out in the field and others being too green, the value of the crop is greatly lessened for every purpose, and especially for exportation.

We would advise those who wish to be considered neat farmers, and who desire to obtain the highest price for their produce, to procure the proper variety without admixture. This will possibly in some places be rather difficult to do. In such a case the kind desired must be picked from the mixture. If the common White Pea is the variety wanted, it may be easily separated from others, by taking a tea-tray and placing a few hand-fulls upon one end of it, then by raising this end a little, the White Pea (which if it has fully ripened will be as round as a slot,) will roll to the other end, and thus by a little pains may be obtained without adulteration. If it be too much trouble to procure all the seed that is required by this process, let a small patch of good ground on which no peas have been grown, for two or three years, be set apart for the purpose of raising seed for the next year. Peas which have been kept more than two years, should not be used for seed.

#### PEAS FOR EXPORTATION.

The Niagara Chronicle, at the request of some of the Agriculturists of that District, recently asked the Montreal Gazette what kind of peas were in request in that market for exportation, and what was the ordinary price at which they sold. The following is the information supplied by the Gazette, and as it may be beneficial to some of our Agricultural readers, we willingly give it a place in our columns. The Gazette says:—"We are informed by a friend largely engaged in such transactions, that the best pea is what is called, locally, the 'Small Canadian White Pea,' that it is, of all others known in this country, the most prolific and profitable, and that it brings by bulk nearly or altogether the same price as the marrowfat pea.

The price of course depends entirely on that in England, subject to insurances and freight. In ordinary years it may be taken at from 2s. to 2s. 6d. the most—a measure the weight of the contents for which, if the peas

be of good quality, may be taken at 67 lbs., but at present the price is no less than from 4s. 6d. to 4s. 9d.; and peas are unquestionably the most profitable crop grown."

From the Germantown Telegraph.

#### DESTRUCTION OF WOOD

A aged veteran in the cause of Agriculture, observed to us the other day, that a single neighbourhood in his vicinity, and within the comparatively short period of seven years, no fewer than three hundred acres of well-wooded forest land, had been cleared of its original growth.

He very reasonably infers that at this rate a very few years would suffice to "do us up" in the matter of fuel as we are already somewhat "straightened," and under the necessity of paying roundly for everything in the shape of wood, whether degradable or not.

There are few evils more to be lamented than the destructive of the growing wood. In an able speech delivered a few years since before the French House of Commons, M. Thuan, in relation to this subject, remarked, "That war, pestilence and famine are less terrible afflictions than the destruction of wood."

"France," observed the statesman, "will disappear as many flourishing countries have, if she does not follow the example of Cyrus, who planted forests in Asia Minor. It is only the abundance of forest and water that enables China to support her three hundred millions of population, because in this empire, there are more trees planted than destroyed. Spain so highly cultivated, and so densely populated, in the time of the Romans, the Moors, and even Charles the Fifth, owes her desolate aspect at present, to this waste of wood." The same is the case with most of the countries in Asia, and the same unquestionably, ere long, will be the case in this country, unless efficient and speedy measures are adopted to prevent it. It is indeed a painful contemplation to behold the useless and wanton destruction so inveterately waged against our native forests.

#### MANURES.

It is only of late years that science has discovered and partially applied, the animal and vegetable refuse of the manufactures to the use of the farmer. A commencement has now been fairly made, and the glue-boilers, tobacco manufacturers, color manufacturers, sugar refiners, wool combers, skin dressers, button makers, and numerous other tradesmen, are made to contribute to the fertility of the soil, what was recently but a public nuisance. Poudrette, also guano and bone-dust, are coming into extensive use. All that, added to our plaster and lime, with the ordinary manures of the barn-yard, certainly give ground to hope for great ultimate benefits. All these manures and stimulants I have seen applied with manifest, but various advantage. My own experience has been rather in favor of a compost of marsh mud, with plaster, lime, and stable manure. Bone dust has not, on our heavy rich soils, produced any thing like the effect described in England, and the consequence is, that bone gatherers are constantly travelling far into the interior collecting bones, which are ground in Philadelphia, and shipped in great quantity to that country. He who uses or consumes upon his own land, the straw and hay of his own fields, selling only a proportion of his grains and fat cattle, may keep his land in an improving condition, especially with the aid of those invaluable stimulants, lime and plaster, and need look no farther for manures.

This process of returning to the land the culm or straw it has produced, is recuperative, and is a wise provision of nature, without which, all lands would have a rapid tendency to sterility.

#### DEFECTIVE STABLES.

One of the greatest defects still existing throughout the country, in the farmers' stables, is the want of tight floors, and a channel in them for the purpose of carrying off the urine of the stock into tanks for its preservation, to be applied at a future day to the grass and clover crops. We advise all who have not their stables thus formed, to remedy the defect as soon as possible; and those who cannot immediately do this, should litter their stock well. The litter will absorb and preserve nearly all the urine, especially if it be whitened every day with a sprinkling of plaster of Paris. If plaster cannot be had, charcoal dust is next best, then peat, tan bark, or indeed most any dry absorbing vegetable substance.

The average state of a cow is from 900 to 1,200 lbs. a year, according to size; that of the horse 1,100 to 1,400. Pound for pound, this liquid is more valuable than solid manure.

The Chinese and Flemings save and apply all animal liquors with the utmost care. They would as soon let their silver coins be lost as this precious fluid; and they are, the best farmers in the world. The Germans, French, and English, are now rapidly following in their footsteps. Millions of dollars' worth of manure are annually thrown away, or missed to waste through the United States. When shall we become as economical in saving, and as enlightened in applying these enriching substances as our transatlantic brethren?—[American Agriculturist.]

In Milwaukee land district, in Wisconsin 700,000 acres of land have been sold within twelve months, leaving but 500,000 subject to entry.