

Horticulture.

THE ORCHARD.

Starting an Orchard.

Every farmer who is not already the possessor of a good orchard, should plant one. There is no surer way of adding to the value of a farm, than by the setting out of a few acres of judiciously chosen fruit-trees. The present year will be a good one for the far-sighted farmer to plant, or to renovate an orchard, for the reason that the past was an unusually abundant fruit season, and prices are somewhat depressed. The necessary consequence will be that many of those who are easily disheartened, will be sickened with fruit growing, and will not seek to extend their orchards. The demand for young trees will probably be smaller this year, from the natural disgust of fruit-growers at the lowness of price, which lowness some will be inclined to think an indication that the limit of the public capacity to consume fruit, has been reached. A little consideration will dispose of this bugbear. The public appetite for fruit is one which is sure to grow. An abundant year and low prices are a blessing to the fruit-grower, in that they induce a habit of eating fruit in persons who, otherwise, would have dispensed with it. They find their health benefited, and continue the consumption, although prices may increase. The number of habitual fruit-consumers is increasing in faster ratio than the population. The export trade of apples and other fruit to Europe is also assuming great proportions; and it is sufficiently demonstrated that apples can be laid down in England, at a paying price much below the figure at which that country can usually produce them. Therefore, we reiterate: Plant orchards, especially apple orchards.

But do not go and plant an orchard without full consideration of what you want an orchard for. Hundreds of Canadian farmers did just this kind of thing years ago, and now find themselves with a species of white elephant on their hands. Their fruit is of all sorts, sizes and qualities, such as cannot be stored together, shipped together, nor eaten together. The mistake was generally made of planting too many varieties. With the modern system of packing apples for transport, this will not do. The motto of the orchardist must be "Hold fast to that which is good." He must not run after strange varieties, or his pocket will suffer. If the fruit is wanted for home use only, and the orchard is intended more as a convenience or ornament, than for profit, some latitude may be allowed in the varieties which may be used. But if intended for profit, and for shipping long distances, the varieties must be few and of widely-known and established character. A variety only locally known, however good it may be, must be rejected from the orchard that is intended for profit.

Articles giving the details of every step of orchard-culture have appeared so recently in the CANADA FARMER, that we deem it unnecessary to give anything but an outline of the *modus operandi* in starting an orchard, the object of this article being rather to set those about starting orchards on the right track with respect to the varieties to be planted.

In selecting the site for the orchard, the average farmer will locate it for convenience, or near the house, paying little attention to whether it be the spot best suited. This is short-sighted policy. Choose a strong soil, well-drained, and if rather rocky, so much the better. A well-elevated position is also to be recommended, but in this case shelter is of prime necessity, and must on no account be overlooked. If not naturally sheltered, belts of ornamental trees should be planted to protect the exposed points from severe and high winds. A high situation, though otherwise suited, could not be considered favorable for planting an orchard without some such protection. If not naturally well-drained, it must be artificially drained. If on a side hill, some experienced orchardists prefer a northern aspect to a southern one; but the question as to which is the better is by no means settled. The best protection from the sun for trees on a steep north-side is to have short stem trees, branching not more than two to three feet from the ground. The tops of such trees protect the trunks, the most vital parts.

Trees on high ground are not nearly so subject to winter-

killing as those on low ground; therefore high ground is to be preferred to low ground. The soil should be in the best possible condition, clean, free from weeds, and perfectly friable.

One of the most common errors usually made, is to plant when only the top of the soil is thawed, and there is a substratum of frost beneath. Wait until the earth is thoroughly thawed out. Deep planting is one of the gravest errors that can be made. Newly set trees should on no account be planted deeper than they stood in the nursery.

The trees should be planted in rows, regularly, for ease in cultivation. For apples, from twenty-five to thirty feet apart is best; for pears, eighteen feet; for cherry and plums, twelve feet.

In the district of Ontario between the great lakes, nearly every really valuable apple will come to perfection. As we recede from the lakes, the varieties become fewer, but in all the settled parts of the Dominion apples may be grown of the hardier kinds. Where apples can be grown profitably at all, the best seven varieties to plant would be the well-known Fameuse, Northern Spy, Duchess of Oldenburgh, Early Harvest, St. Lawrence, Red Astrachan, and Golden Russet. In milder sections, the King of Tompkins County, Gravenstein, Hubbardston Nonsuch, Rhode Island Greening, Swayzio Pomme Grise, Baldwin and Roxbury Russet are also paying varieties.

There is not so much money in pears as in apples, except in unusual seasons. The varieties that can be grown profitably are few. Still, there are few people who positively dislike a ripe, luscious pear; and the farmer who is laying



out an orchard for profit, can well afford the ground occupied by a tree or two. The Vicar of Winkfield, Flemish Beauty, Louise Bonne de Jersey, Sheldon and Beurre d'Anjou, we judge to be the six varieties most likely to yield a profit. Of these, the Beurre d'Anjou, Flemish Beauty, and Vicar of Winkfield are best suited for districts out of the reach of lake influence. The Bartlett can be grown successfully south of the Great Western Railway.

Of cherries, the Early Richmond is the best paying variety, and is hardly enough to flourish anywhere that cherries will grow at all. The Kentish will rank about next. Cherries thrive best in sheltered corners and in valleys.

Of plums, the Lombard, Yellow Gage, Yellow Egg, Smith's Orleans, Washington, and Coe's Golden-drop, will be found among those most likely to prove remunerative.

It will be well for the intending fruit-grower to visit all the orchards in his neighborhood, which have similar soil, exposure, etc., to his own, and notice the varieties which thrive best and prove most profitable therein. By so doing he may save himself an annoying and costly failure.

Fruit-Buds and Leaf-Buds.

As the time for budding and grafting is at hand, an explanation of the difference between fruit buds and leaf-buds will be timely. In these two operations, fruit-buds are rarely used, and that only in making experiments.

In the engraving A represents a pear shoot, and B a cherry. Fruit or flower buds are usually round at the point, as at b, b, b, in both figures; leaf buds are slender and sharp, as at c, c, c. By carefully cutting them open under a microscope, by means of a sharp knife, you may detect the parts of the flower in one instance, and the innate leaves in the other. The readiest way, however, to become acquainted with the difference between the two kinds of buds, is to observe

them when they are swelling in the spring, and afterwards examine them when open. We copy the engraving from the *Country Gentleman*.

Liquid Grafting Wax.

Mr. L'Homme-Lefort invented, not many years ago, a grafting composition which is very cheap, very easily prepared, and keeps, corked up in a bottle with a tolerably wide mouth, at least six months unaltered. It is laid on in as thin a coat as possible, by means of a flat piece of wood. Within a few days it will be as hard as a stone. It is not affected by severe cold; it never softens or cracks when exposed to atmospheric action. When applied to wounds in trees, it acts as an artificial cuticle. After a few days' exposure to the atmosphere in a thin coat, it assumes a whitish color, and becomes as hard as stone, being impervious to water and air. As long as the inventor kept the preparation secret, it was sold at very high prices.

It is made after the following formula: Melt one pound of common rosin over a gentle fire; add to it an ounce of beef tallow and stir it well. Take it from the fire, let it cool down a little, and then mix with it a tablespoonful of spirits of turpentine, and after that about seven ounces of very strong alcohol (95 per cent), to be had at any drug-gist's store. The alcohol cools it down so rapidly that it will be necessary to put it again on the fire, stirring it constantly. Still the utmost care must be exercised to prevent the alcohol from getting inflamed. To avoid it, the best way is to remove the vessel from the fire, when the lump that may have been formed, commences melting again. This must be continued till the whole is a homogeneous mass similar to honey.

This is undoubtedly a valuable recipe. I have found that gum shellac, dissolved in alcohol, was one of the most useful preparations that a gardener could have, and it should always be kept on hand and used like paint, to coat over any wounds in trees. In budding, it is a great saving of labor, when you wish to cut away branches, to give the new one from the bud an opportunity to grow, as it excludes the air until the wound heals.—*New York Tribune*.

Hybridization.

Information wanted. Would some skilled fruit hybridizer give me some information, through the CANADA FARMER, at what time to perform the fertilizing operation on the blossom? Is it before the blossom is fully unfolded, or after? And what part of the blossom must be removed—the central stem or the next surrounding ones? The latter, I suppose, is the male. The March number of the CANADA FARMER gives good directions for grafting, which I understand myself by yearly practising on my own trees; and I would like to practice on hybridizing too.

FRUIT-LOVER.

Markham, Ont.

GRAFTS FROM BEARING TREES.—The *Rural World* states, that no apparent difference has been discovered from long experience, between the bearing qualities of trees grafted from young nursery trees and older bearing ones, adding: "We have often gathered apples from nursery trees when they were but three years old, simply by cutting the roots in digging out contiguous trees. We never go to any trouble to get grafts from bearing trees, unless some doubt exists as to the correctness of the sort."

INARCHING.—Inarching is a kind of grafting, in which the scion is allowed to remain on the parent plant till it becomes united to the stock. To accomplish it, the stock and the plant to be propagated must be grown side by side, or else one or the other of them must be in a pot, so that the two can be placed together. A portion of wood is shaved from the stem of the stock, and a corresponding portion from a branch of the shrub to be propagated. The flat surfaces thus formed are then brought together, bound fast, and covered with wax. In the course of the season they unite, and the shoot, now receiving nourishment from the sap of the stock, is cut from the parent plant, and begins at once an independent growth.

GRAFTING OLD PEAR TREES.—There are many old pear trees, in almost every neighborhood, nearly worthless, as well as some other worked kinds, which crack their fruit, and are unsaleable, that could easily become a source of pleasure and profit, at little expense. Grafting is not very difficult. Cut off the limb, split it, open the split with a small wedge, insert a piece of the limb of the kind wanted, cut like a wedge—say 3 inches in length—putting the inner edges of bark in both graft and limb together, then cover carefully with wax, and nearly all will grow. The wax is easily made. Melt together in a kettle, 1 lb. of tallow and 1 of beeswax, then 4 lbs. of rosin; when melted, pour into a pail of water, and pull it till well mixed. In a selection for six trees, I would use 1 Blood-good, 1 Tyson, 1 Bartlett, 1 Clapp's Favorite, 1 Lawrence and 1 Beurre d'Anjou. For twelve trees, three each of the three last named, as they are splendid varieties, and always saleable.—*Cor. Country Gentleman*.