

When and How to Prune.

There is probably no line of orchard work more neglected or badly done than that of pruning. It is a common sight to see orchards where pruning has been neglected until the trees are a mass of thick brush, and, on the other hand, where it has been done by incompetent hands, who have gone to the other extreme and have butchered the trees unmercifully, and destroyed their usefulness to a great extent. The best time to prune is, no doubt, in the growing season, as soon as possible after growth starts, for then the wounds made heal most rapidly. But the press of work at that time prevents many from getting it done, and most of the pruning is done during the latter part of March or first part of April. This is far better than fall or winter pruning, for if it cannot be done at the proper time it is better to get as near to it as possible. The cutting out of large limbs should be avoided, or making any large openings in the top of the tree to allow the hot summer sun to shine for several hours at the hottest time of the day on the bark of the limbs, so as to blister them. Trees are often ruined in this way. As some varieties of fruit trees are inclined to grow a dense top, the pruner should remove sufficient to allow of a free circulation of air and sunshine, but he should prune so that no part of the limbs are exposed for hours to the direct rays of the sun. This can be easily done by the intelligent pruner. He can get the sunlight into the tree, and yet have the limbs shaded by the foliage most of the time. The pruner should also have an eye to preserving the symmetry of the tree. Another point is the even distribution of the bearing wood. Some itinerant pruners strip off the fruit spurs, leaving only a few on the two-year-old wood, near the center ends of the branches. In varieties that are inclined to set more fruit than they can properly mature, a thinning of the fruit spurs when pruning is advisable, and easier than thinning the fruit. But we often see the leading limbs standing like bare poles, with just a wisp of brush on the outer end, everything else, fruit spurs and small branches, being stripped off. Then nature endeavors to heal the breach by throwing out a crop of suckers, and the tree has received permanent damage, from which it will never entirely recover.

The pruner should use a good stepladder, and go around the outside of the trees, and do most of the pruning from there. He should use the pruning shears more than the saw. He must exercise good judgment in dealing with different habits of growth to give an upward shape to the tree of spreading habit as much as possible, and a spreading turn to the decidedly upward grower, without spoiling the shape or symmetry of either.

When the cutting out of large limbs is necessary, as is sometimes the case, to allow of close cultivation, the wounds should be covered with grafting wax or shellac until healed.

In the case of the plum and peach, most of the successful growers when pruning shorten in by cutting back half of the new growth each year, and thinning out the smaller twigs. It being necessary to encourage a stocky growth to support the load of fruit without breaking and splitting of the limbs, fruit trees should be pruned as they grow. A little every year is the best practice, and trees that are pruned properly will not develop suckers or water sprouts, and the old saying that whatever is worth doing is worth doing well applies aptly to the work of pruning fruit trees.

Manuring Orchard.

My practice is to haul the manure on the ground in the winter; put it in small piles, which will not heat, and scatter it in the spring before we plow or work it into the surface. I prefer to have it as close to the surface as possible, as I think one is more likely to get the full benefit than if it is plowed in deeply where portions of it may drain off beyond the roots of the plants. Still, we plow the most of ours in shallow, as we put so much on that it could not be worked in by surface cultivation.

I have used considerable quantities of artificial fertilizer, and they are valuable in some cases where manure cannot be had, but chemical analyses satisfy me that in general we pay at least double for artificial fertilizers what they are worth, compared with barnyard manure at \$1.00 per ton. Then, besides, barnyard manure has the value of creating humus, which absorbs and holds moisture, which is as necessary to the growing crops as the fertilizers are.

For several years past I have not used any artificial fertilizers except wood ashes; these I buy at about 10c. per bushel, delivered on the farm. The potash in these costs me at that price not more than half what it would cost in artificial manures, and not much difference from what the potash costs that is in barnyard manure. Barnyard manure contains an undue proportion of nitrogen. However, for high-colored fruit or for well-matured wood I use the ashes as the corrective.

Winona, Ont.

E. D. SMITH.

On Growing Turnips.

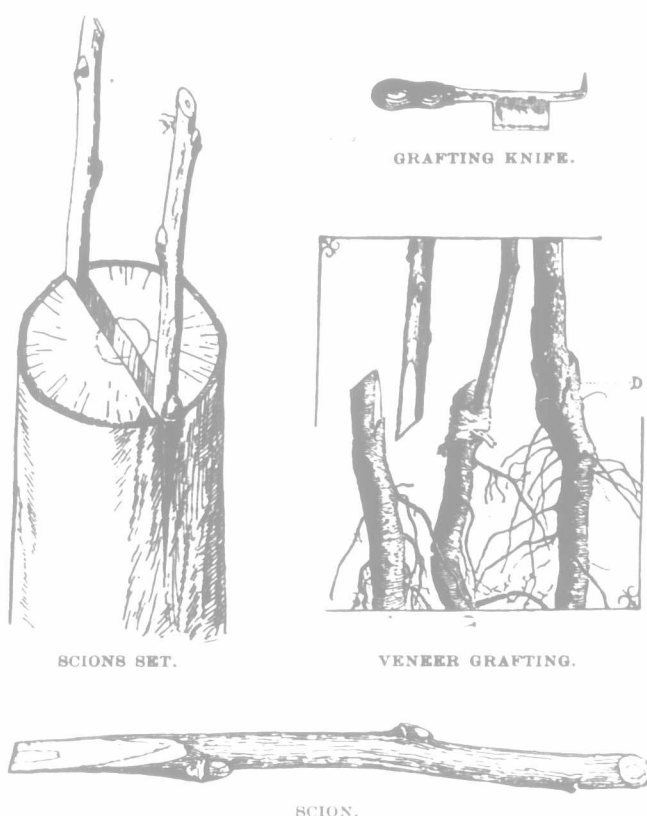
To the Editor "Farmer's Advocate":

I noticed in one of your recent issues, a subscriber asking for remedy for lice on turnips. I will give you my experience for the past five years. My first experience was this: I mixed a small package of turnip seed with my mangolds for table use. They did not seem to be a table variety, but I had about four hundred bushels of tremendously large turnips. They were the only turnips in our neighborhood that year. They were planted about the tenth of May, and sown thirty inches apart with a grain drill, on the flat. I have had them mixed with mangolds ever since, and have the best of results. I grow Westbury purple-top turnip and Yellow Intermediate mangold together. Prepare the land as for growing mangolds, and sow with a grain drill. Cover as light as possible, then roll with a land roller. Last season, I mixed a five-cent package of cabbage seed, and had a wagonload of good big cabbage. In the five years I have not had lice on turnips, or long-necked turnips. My land is heavy clay.

MIDDLESEX FARMER.

Top-grafting.

A correspondent says he would like to know something about grafting. No doubt if the practice of grafting were better understood there would be more of it done. It is not a complicated or difficult process, and any person who can make a wedge on the end of a twig can easily graft. There are several methods of making the juncture between the stock and scion, but the simplest of all is known as cleft grafting. This consists in cutting off a branch from the main stalk, preferably about one inch in diameter, splitting the end with a chisel or knife, and inserting a previously prepared scion of the variety of tree to be propagated. The scion and the juncture are well illustrated here. In making the



vertical, so that the scions may be side by side rather than one above the other.

Waxing is the important part of grafting. Have the wax well drawn and pliable so that it works well. Make a handful into a braid-shaped mass, wrap once around the scion and draw down the side over the split in the stalk; then with the other end of the string wrap the scion again and cover over the top of the stalk. A good wax is made of four parts resin, two parts beeswax and one part tallow. In making melt the materials together and pour into a tub of water. It soon becomes hard enough to handle, when it should be pulled until it gets pliable. When handling it the hands should be well greased to prevent it sticking.

Cherry Growing.

While the growing of the tender class of cherries, the Hearts and Biggereans, may not be successful much beyond the limits of the peach belt, yet the Dukes and Morrello class, which include those varieties most suitable for canning and other culinary purposes, can be grown wherever most of our commercial apples can be successfully cultivated. Cherries usually thrive best on a warm, loamy soil or sandy loam, with natural drainage. The soil should be in good condition as to cultivation. They may be planted 20 feet apart each way, and given clean cultivation. Small fruits or hoe crops may be grown between the rows for a few years, but when the trees approach bearing age they should have the use of all the ground, with an occasional dressing of manure to keep up the fertility. The worst disease affecting the cherry is the black-knot, and yet it would be the easiest to deal with if the law concerning it was strictly enforced; but as, with the exception of a few townships, there is no one specially charged with the enforcement of the law, and the old saying, "That what is everyone's business is nobody's business," holds true, in this case the law is a dead letter. This disease propagates by means of very minute spores that carry in the wind, and the only effective way of dealing with it is to cut it out and burn it, whenever and wherever found. This is what the law requires everyone to do, and if everyone would do it the disease would soon be exterminated. We often see, however, enough of it in one orchard or garden to seed a whole township, and so long as this state of affairs exists with respect to this pest, it will continue to be the greatest hindrance to the successful growing of cherries.

Of the insect pests, probably the worst is the green and black aphid. These should be dealt with by means of kerosene emulsion or whale oil soap, and the time to do the most effective work is just when the buds are bursting into leaf. Cherry trees should also be sprayed with the Bordeaux mixture; it is a help in the prevention of black-knot, and also to keep the foliage healthy. As to varieties, it is a difficult matter to advise, as what might suit well in one locality might not do so well in another. But for general planting, and for most localities where cherries can be grown, the following varieties will likely prove satisfactory: Early Richmond, Montmorency, English Morrello, Dye House; and of the Russian class, "Orel 24," "Ostheim," "Russian 207," "Bessarabian," and Brüsseler Braun—all good varieties for culinary purposes.

In pruning the cherry, no large limbs should be removed, but the small brush thinned out with the pruning shears. Pruning should begin early with the growth of the tree, and should be regular every year, and so avoid the cutting out of large limbs. The cherry is one of the most marketable of fruits; the supply scarcely ever equals the demand, and is not likely to do so, and those who plant cherries and give them proper care and attention will stand a fair chance of getting a profitable return for their money and labor. Cherry culture is not likely to be overdone for some time to come.

Injecting Fruit Trees.

Please answer the following question in your next issue: Is the system of boring fruit trees and injecting some drug into them of any benefit, so far as you know? Agents are going through the country advertising this system, and charging 25c. per tree.

SUBSCRIBER.

Elgin Co., Ont., Feb. 26th, 1904.

Ans.—For the purpose of destroying insect and fungous pests, we know of no effective method except spraying; and for improving the general health and vigor of the trees, so that they will be in the best condition to resist the attacks referred to, the method to be pursued consists in the proper pruning of the trees, and the cultivation and fertilizing of the orchard soil. In a couple of cases into which we made enquiry, the holes bored in the trunks of the trees were filled with what proved to be simply a harmless but ineffective mixture of sulphur and charcoal.