

that the branches are growing into each other, I would cut these trees back all round, leaving at least four feet of space free from branches. That much space or more is necessary for sun and air and to enable free driving with the spray outfit. Cutting back all side branches of large trees has a tendency to make the branches stiffer so there is less danger of fruit being rubbed by swaying branches. The sprouts that will likely come on lower branches after such top pruning I would leave on where necessary to fill vacant spaces, others would be cut off at once. Next I would cut back those sprouts that are to be left to a length of six inches, leaving the last bud pointing in the direction the branch is desired to grow. Sometimes it is necessary to tie a sprout and force it to grow where it is needed. These sprouts, if cared for, will bear fruit in three years.

As a rule there has not been nearly sufficient labor put on the outside of the tree. To have fine apples they must have light and room. A safe rule is never to leave a branch or twig that can rub or touch another branch when loaded with fruit. It is not advisable to cut large branches if it can be avoided. Occasionally there is a large branch so low that a team cannot get close enough to plow or cultivate. In such a case I would cut the branch off.

ABOUT PRUNING TOOLS

There is no tool the equal of a fine-tooth, sharp saw for pruning. When the branches can be reached clippers may be speedier, but they do not do such clean work. There is a saw manufactured in the States that is superior to anything yet made in Ontario. This saw has a blade half an inch wide and about 18 inches long, with a strong back about three inches from the blade, so there is little or no friction. Last season some of these saws were in constant use during a long pruning season and never required sharpening. (Spare blades can be had for these saws.) What is generally known as a long-handled pruner may be used where saws cannot reach. These pruners are of various lengths. Eight feet is a convenient length, with one 12 feet long for very high trees. In every case cut as close to the branch as possible. Shoulders or stubs are unsightly, and the wound does not heal so well.

The pruner should be very careful not to bruise or break the bark with rough boots or ladders. Broken bark is a most likely place for spores or black rot canker to start. In some districts there are a great many trees injured with this disease, and if not cut out or treated the tree is likely to die. If the disease has gone completely round the branch, cut it off about 12 inches below the injured part. I burn all black rot canker at once. When only a small portion of the branch is infected it can be treated and brought back to a healthy condition. With a sharp knife cut off all the discolored bark and anything that looks unhealthy; then disinfect with corrosive sublimate at a strength of 1 to 1,000. Corrosive sublimate can be procured from any drug store. Apply the

solution with a small stiff brush, rubbing well into the bark. When the wound is dry, paint with two coats of white lead and raw oil paint. This paint is only for protection until bark grows over the wound.

Thorough pruning of large neglected trees is a slow and expensive business. I have seen a first-class pruner being as long as eight hours on one tree. Many districts are spraying thoroughly, but few can be called well pruned.



There are Many Orchards in need of Similar Treatment

This month, March, is the one generally adopted by fruit growers as pruning time. Mr. Brown, Simcoe Co., Ont., may be here seen pruning up some trees in an old orchard. Notice the high heads and generally undesirable shapes of these trees. And yet orchards in just as bad shape as this one, through thorough pruning, followed by good spraying, have been made to yield profitable crops.

Experience with Commercial Fertilizer

J. W. Clark, Brant Co., Ont.

I have been using commercial fertilizer for 15 years and fully appreciate its value. I value it especially for fruit and vegetables. Before one can use commercial fertilizer to best advantage, however, he must thoroughly understand the needs of the plants to which he is applying fertilizer, and he must also have a good knowledge of the deficiency in his own soil. Otherwise, how can he decide what fertilizers are needed?

Experimental experience is the only way in which this knowledge can be gained. From my own experience in orchard work, I have found that mature trees show best results when treated with acid phosphate and muriate of potash, about 200 lbs. to the acre. I prefer finely ground bone as a source of supply for acid phosphate. This bone is not in a very available condition, and it must be applied as early in the spring as possible.

In addition to this, I have been using a cover crop which is plowed down each year and every third year I make an application in the orchard of barnyard manure. Where wood growth is desired nitrate of soda is the desirable fertilizer, but I find that with bearing trees the nitrate tends to delay maturity, and its use will not be advisable on winter varieties, especially where color is essential.

Fertilizers, however, are not all. The fruit grower must ever bear in mind the importance of humus in the soil as a retainer of moisture. Proper pruning, thorough spraying, and cultivation are the other factors in successful fruit growing.

To get the best results from food and labor, the cow must be comfortable, and have light and air. Simply because we know that cows will live in a dirty, dark, ill-smelling place does not prove that they are doing their best there.—P. H. Moore, Victoria, B.C.

Where do we stand in Apple Industry?

P. J. Carey, Dominion Fruit Inspector.

After a season such as the past year has been, many people are asking the question, where do we stand in the apple business? Have we overdone the industry? Is it advisable to plant out more apple trees? To these questions I make answer that it is advisable to plant still more trees, but these must be only of desirable varieties. We must cut out the undesirable. We must give the people what they are asking for—the varieties they want.

In the West, and in our larger cities even here in the East, we are up against competition from American apples such as the Roan Beauty, which are even now retailing in Toronto at five cents apiece. They are not up to much in quality, but they have a most attractive appearance. They are clean apples, perfectly formed and attractively packed.

The bad state of the markets this past year put a great many irresponsible buyers out of business. The money from abroad usually advanced to them was withdrawn. Only the reputable buyers and the cooperative associations were left, and thus there were not enough buyers to go around, and many apples of necessity went begging for buyers, realized a very low price, and in some cases even rotted in the orchards.

The key to the whole situation is to produce good fruit, properly care for it, properly pack it and market it where the people want it. Our Ontario and Eastern apples cared for and packed as they should be have Western apples beat to a frazzle. We have got to raise better apples and larger apples having abundance of high color. There is a good thing in apples yet—in fact, they are the best thing yet on the



Not Much Chance for Insects Here

"Spray till every last twig is dripping." These words, from one of our best fruit growers, describe spraying as it should be. Notice this tree sprayed with lime wash. Everything is white.

farm—but it all depends on how you treat your orchards. "Eternal vigilance in orcharding is the price of success."

It was generally agreed by sheep men at the Winter Fair at Guelph that belled sheep were less liable to attack from dogs than sheep with out bells.