

Bordeaux mixture and Paris green at least twice after the blossoms have fallen. The former will clean the limbs of hanging lichens or moss, and the latter will settle most of the noxious insects, though it cannot reach the apple maggot, which calls for special treatment, because it is the larva of a small fly which punctures the skin of the apple and lays its eggs underneath. No matter how thorough the spraying may be it cannot reach this pest; but if the windfalls can be destroyed as soon as they drop, and all refuse from places where winter fruit has been stored be burned, the next season's numbers will be appreciably reduced. It is in this respect that pasturing the orchard has a marked advantage, because if well stocked with hogs or sheep the apples are eaten before the insect is likely to escape.

There are some instances in which the orchard may be in such a condition from long neglect that the land cannot be properly tilled, and the trees cannot be adequately fed. One of the best methods of feeding the tree is to keep it well pruned, because then the food which would otherwise be diffused in numbers of worthless limbs is concentrated in a small number. It is only the well pruned trees that are capable of successful treatment with sprays. Apple and pear trees should be pruned to keep the heads open. Plum trees should be pruned to keep out the black-knot, and some Japanese varieties require frequent cutting back. All pruning can best be done very early in spring, before the sap starts.

There are so many apple trees of little value growing in Canada, which could be successfully top-grafted with better varieties, that it would well repay anyone possessing an orchard to go carefully over his trees and top-graft those which do not produce paying crops. The chief points to take into consideration in top-grafting may be summarised as follows:—

Old trees, if healthy, may be grafted with success.

The top should not be all cut away the first year, but should be removed gradually, the time required to change the top successfully being from three to five years.

Early spring, before growth begins, is the best time to graft. The branches to be grafted should not be more than from two to three inches in diameter where the grafts are to be inserted.

After the branch is carefully sawn in two, the stub is split with a mallet, held open with a wedge, and the scions inserted; two being used, one on each side, if the branch is more than an inch in diameter.

The scion is made from a twig of the previous year's growth, about four or five inches long, and having three or four buds. It is prepared by making a wedge of the lower end, beginning near the base of a bud. The scion is inserted in the stock as far as the upper edge of the wedge.

In inserting the scion great care should be taken that the inner bark of both scion and stock should come in contact with each other. This is very important, as the healing begins from this point, and if the scion be inserted carelessly there is almost certain to be a failure.

After the scion has been set, the cut surface is covered over with grafting wax to exclude the air, and strips of cotton may be wrapped over this.

A good grafting wax for out door use is made by melting together rosin and beeswax in the proportion of five parts rosin and two parts beeswax; to this is added one and one-half to two parts linseed oil.

In top-grafting a tree always have in view the production of a symmetrical top after the old one has been removed.

With this cultivation codling moth will disappear, and in three seasons an old ugly and comparatively worthless orchard can be converted into a pretty uniform one, with abundant crops of marketable and profitable varieties. An orchard is "never too old to mend," or beyond renewal.