

HORTICULTURE

[Pruning Peaches and Apples]

J. O. Duke, Essex Co., Ont.

In my opinion fruit growers will have to change their ideas of pruning in order to meet the changed conditions. The old way of thinning out the centre of the trees to let the sunlight in has resulted in many orchards, apple especially, becoming too tall for the care that a tree now has to receive.

My methods are very different from those usually advocated and I am reasonably successful in getting good crops of good fruit and have healthy trees. Instead of heading back young peach trees, as is always recommended by horticulturists, I let them grow just pruning enough to keep the young tree well balanced and to correct excessive growth in any one direction but after the tree gets six or eight years old I begin to head back.

When peach trees have attained a size that necessitates a ladder in picking the fruit, I begin to prune and keep the fruit producing wood close to the ground. Keep the trees low so they can be readily sprayed without any greaterrick to get at the topmost branches. I find my trees are hardy and I have a good supply of fruit from trees handled thus.

I am applying this same principle to apple trees, thinning out from the top and leaving those limbs in the centre of the tree that are usually removed. I find that my trees are bearing a good crop throughout the tree and not on the outside which is usually the case with apples.

The fruit that is grown in the interior of the tree is so liable to blow off as it is never allowed to grow on long branches and the tree is more easily sprayed and the fruit more easily picked.

Winter-Killing of Swollen Buds

W. T. Macoun, Central Experimental Farm, Ottawa

During the latter part of winter when the sun is beginning to get strong and when some days are quite warm there is often a premature swelling of buds, especially of the cherry, plum and peach. This warm spell may be followed by cold weather and there may be several such changes before spring. The buds being swollen and more or less active are more subject to injury from frost and changes than the dormant buds and the result is that they are killed. Great injury is often caused in the peach districts by the killing of swollen buds, and in the province of Quebec injury to the buds of plum and cherry is no doubt done when they are in this condition.

It was thought that if the ground could be kept frozen about the trees the cold would prevent the buds from swelling as the roots would thus be kept in an inactive condition, but it has been proved over and over again that it has no effect whatever in delaying the swelling of the buds. The expanding of the willow buds in our swamps before ice is gone is a good example of how buds will develop while the roots may yet be in a frozen condition. There is sufficient sap in the tree to supply the buds and even the leaves when they first expand and when the temperature about the top of the tree is high enough, growth begins.

Swelling of buds can be prevented by bending over the trees as suggested (in a previous issue) to prevent killing of dormant buds, but this could not very well be made a large scale.

A few years ago experiments were conducted at the Missouri Station to determine if whitewashing the trees

would retard the buds, the principle being used that white surfaces do not absorb heat as readily as darker ones. It was found that the whitewashing did retard the buds and in the case of peaches would sometimes prevent injury from frost. An experiment was tried at Ottawa in whitewashing plums and cherries, and it was found that the retarding of the buds.

This means of prevention is not, however, a very practicable one as it is difficult to get the whitewash over the branches well for a long period. After further investigation at the Missouri Station it was found that the buds of varieties of peaches having the lightest colored twigs re- turned to swell than those with darker colored twigs, and the former suffered less from killing than the latter. Not having in these lighter-twigged varieties the kinds of peaches required for commercial purposes the Missouri Station is now at work breeding good varieties with light colored twigs.

A New Disease of the Apple

Benjamin W. Douglass, the entomologist of Indiana, makes the following excellent suggestions on spraying:

"If the farmers in every community will band together to buy a power sprayer it will mean better fruit and better prices. There are a great many new diseases to cause apprehension but as often as new disease appears a way to combat it can be found, so that on the whole there is nothing to be discovered. Every farmer I think, knows that if a good crop of fruit is to be expected, he must give his tree some attention.

Early in the summer one of my inspectors secured specimens of apples which were disfigured by a curious and uncommon disease. The first specimens sent in resembled to a certain extent early stages of the apple scale, but a microscopic examination and further study revealed that we had a new disease of the apple—new, at least, to Indiana horticulturists.

"The disease first makes its appearance on the fruit in the shape of small, light brown blotches which consist of lines running from a common centre in a radiant fashion, like the spokes of a wheel. The entire spot has the effect of having been splattered or splashed upon the apple. The size varies. As a rule the blotch seems larger on red varieties than on the yellow ones, though frequently a spot will increase in size if the apple is kept in storage. As the disease progresses the blotch will become sunken and will eventually crack, exposing the flesh of the fruit to a considerable extent.

"The disease is a fungous disease and like most of that type is best combated by spraying with the Bordeaux mixture. Four sprays are recommended, the first one three or four weeks after the petals have fallen, the second two weeks later, and the third and fourth at intervals of three weeks. Success will, of course, depend upon the thoroughness with which it is done."

Spraying Trees and Cost of Outfits

Many enquiries in regard to the lime-sulphur wash, the kind of spraying apparatus to use and cost of the same have been sent to the Pennsylvania Department of Agriculture. The following reply by Professor H. A. Surface, state zoologist, will be of interest to every person owning fruit trees, whether few or many—

"You can evaporate your own lime-sulphur solution and destroy the scale by its use, making this material by boiling together the lime and sulphur, or you can buy it ready made in the concentrated form, ready to dilute with eight times its bulk of water, and spray on the trees and

kill the scale. It is cheaper to make it, but where you have only a few trees, it is more troublesome. Either form will kill the scale if applied strong enough and neither will hurt the trees if applied at any strength whatever. The home-boiled lime-sulphur is made by boiling four pounds of sulphur (either flowers or flour) with five and one-half pounds of quick lime, and water enough to boil them, and afterward add enough water to make the total bulk not more than twelve gallons. Strain this well. The straining is very important. Clog-

Pin His Faith To It

I am much interested in Farm and Dairy, and it is great. I pin my faith to it and follow it in every way that I can.—C. E. Bent, Cumberland Co., N.S.

ging of nozzles and sloppy work is generally due to lack of proper straining. The best way to strain is to use brass wire cloth thirty meshes to the inch, setting it at an angle across the funnel, or built as a cone with the point standing upright in the strainer funnel.

"Spray the lime-sulphur wash (either home-made or commercial) directly over the trees at any time after the leaves are off, giving them two good coats, one from each side. Take advantage of an opposite wind to spray the opposite side of the tree. Repeat this in the spring when the buds are swelling.

"You can buy of most seedsmen inexpensive spraying apparatus. For such trees as you have at present a complete outfit, costing not more than five dollars, would serve the purpose. Nearly all manufacturers of spraying material make these small

and cheaper sprayers, which are generally in the form of hand sprayers, bucket sprayers, compressed air tanks or knapsack sprayers. The highest price that they should cost should not be more than ten dollars, and from some manufacturers a cheap outfit can be bought for one-third this amount. Every person growing even a few trees and shrubs should have his own spraying apparatus of the size and power adapted to his needs.

"You can not expect to keep your trees free from scale by preventive means." The point is to spray them when they are infested, and thus keep the scale under control. There is really no need of spraying for scale at a time when it is not present. The quantity of the lime-sulphur solution to be prepared, as given above, is for the owner of a few trees. In regular orchard work, it is preferable to make less than a 50-gallon quantity at one time, when the proportions of materials used are 17 lbs. of sulphur and 22 lbs. of lime, boiled together as stated above. One hour of thorough boiling is necessary."

I have been a planter of trees since 1884 when I planted an orchard on my farm. I have since then planted forest trees for a wind-break and I have planted trees of some kind every year since. These are a benefit and a blessing to others as well as to myself. W. J. Stevenson, Ontario Co., Ont.

One of the heaviest shipments of vegetables that were ever sent from Newcastle, Ont., was last fall forwarded to Toronto, when 30,000 cabbages raised by Mr. Harry Douglas on three acres of land was forwarded to a Toronto firm. The crop realised some \$600.

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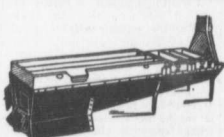
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