HOW THE DISEASE IS SPREAD.

Among the foremost agents in the spread of the blight are bees, wasps, and other insects, which carry the disease from flower to flower during the blossoming period. More important than the bees, for it seems impossible to exercise any control over their work, is the green apple-aphis. Aside from the great harm this insect undoubtedly does by sucking the juices of the plant, it is one of the most fruitful sources for the spread of the blight. A large proportion of the twig-infection can be traced directly to its agency. The apple-leaf hopper and the woolly apple-aphis doubtless bear a share in this work as well. The gummy exudate that oozes from diseased bark is swarming with the germs of the blight; and insects, becoming contaminated from this source, carry the disease to other trees, which in turn become infected. In Ontario the fruit-bark beetle (*Scolytus rugulosus*) has been shown to be an important agent in introducing the blight into the trunks of pear-trees.

The use of infected pruning-tools has more than once been responsible for spreading the blight over a whole orchard.

CONTROL.

The work of various investigators has shown that fire-blight is a controllable disease. If the following directions are faithfully followed from the start, no alarm need be occasioned by its appearance in any district.

Immediately the disease appears the affected limb should be removed, the distance to cut out being governed by the rapidity with which the disease is progressing. At least a foot below the visible signs of disease is none too much, and even more may be necessary. Immediate cutting out is essential, for once the disease has gained entrance to the trunk or main limbs, it is often next to impossible to save the tree. Where the disease has formed a canker around the base of a shoot, the bark should be cut away for at least 4 or 5 inches below the diseased area. All cutting-tools used should be thoroughly disinfected after each cut by dipping or swabbing with some good disinfectant. Corrosive sublimate, 1-1,000, is excellent for this purpose, and formalin, 1 pint diluted to 3 gallons with water, is also most satisfactory. The cut surfaces of the wood should also be swabbed with the disinfectant and large wounds painted over with a mixture of oil and lead, to prevent the entrance of wound-parasites. All prunings from diseased trees should be gathered and burned at the time of cutting.

As new infections may be continually taking place, it is not possible to control the disease entirely by this treatment. It is necessary to go carefully over the trees for at least three times after the leaves have fallen, and cut away all blighted parts. To detect all cases of the disease where it is no longer active is not always easy. The darker colour and withered condition of diseased bark is usually a good indication. Where a "hold-over" canker has been formed, this can be detected by the colour and by the crack that usually forms around it. As the suckers, which are often found at the base of a tree, are favourable channels for the entrance of the disease into the trunk, they should, as a measure of precaution, be removed in those districts where the disease occurs. A war of extermination should be carried on against aphides and leaf-hoppers, which should never be allowed to become numerous. Spray with Black Leaf 40 or Black Leaf as often as is necessary to hold them well in control.

Clean cultivation and irrigation are often practised to excess in our orchards. This tends to produce an abnormally large and sappy growth of