Blight on Pear and Apple

W. T. Macoun, Central Experimental Farm, Ottawa

SPRAYING with Bordeaux has no apparent effect upon blight, but it is believed that lime and sulphur, forming a coating over the bark prevents to some extent the entrance of the blight germ. The bacillus or germ of the pear or fire blight finds its way into the tree at the tenderest and least protected points, and it is believed by those who have made a careful study of it that practically all the infection is done by insects or birds, and that the disease is not carried to any extent by wind. Insects carrying infection travel to the tips of succulent shoots, and the germs find entrance through the buds at the axils of leaves, and at any point where the bark is broken. The chief sources of infection of bearing trees is through the flowers to which come insects bearing the disease.

The blight is usually first noticed in the spring on bearing trees when flowers and flower clusters which have been blighted wither and do not set fruit. Soon the fruit spurs are noticeably affected, and also the new wood. The disease starting at the tip of the shoots usually runs down, although it will run in every direction, sometimes passing on to the main branches and to the trunk of the tree. The disease varies in the way it spreads. Sometimes only the flowers are affected or the fruit spurs or smaller twigs, or patches about a place on the branches or trunk that have some physiological injury. The germs are found in a gummy substance or exudation, and this is carried by the insects from one flower or tree to another. These bacteria increase very rapidly by division, and once the tree is infected the disease may soon spread over a large area.

The best method of controlling this blight is by cutting out the diseased parts. To do this thoroughly it is necessary to begin in the winter, going over the orchard several times to be sure that all the diseased wood has been observed. This should be followed up in the spring and summer, and everything showing a sign of the blight should be cut out not less than six inches below the affected part or into healthy wood. Where possible it is wise to cut as much as a foot below where there is evidence of the disease. It has been proved by experiment that infection is carried on the knife or saw, especially in summer, hence after each branch is cut the knife should be disinfected. The disinfectant recommended by Prof. M. B. Waite, who has given this disease careful study and who is confident that it can be controlled by taking proper care in pruning and doing the work systematically and thoroughly, is "a solution of corrosive sublimate in water, one part to one thousand." Tablets of convenient size for making the solution may be obtained from the drug store. A sponge is carried with which to apply the disinfectant. Corrosive sublimate is a deadly poison, hence should be labelled "Poison." It should not be carried in a metal receptacle. The objection to a carbolic acid solution in water is that it must be made very strong to be effective.

A systematic effort is now being made in California to stamp out this disease, which has recently gained a foothold there. The method adopted is to cut out affected branches and burn them. Where the body of the tree is affected it is rooted out and burned. Fruit-growers in the pear districts of Canada should combine in an endeavor to control the blight. Individual efforts are of little avail if neighboring orchards are neglected.

A Field of Strawberries that Yielded Big Returns Last Season
Farm of Mr. Robt. C. Shook, Clarkson, Ont.

Harvesting Strawberries

This account of the methods practised by Mr. W. F. W. Fisher, of Burlington, Ontario, one of our most successful strawberry growers, is well worth careful reading: "The cultivation of strawberries on a large scale," writes Mr. Fisher, "involves a great amount of labor, expense and care through all its various phases—preparation of land, planting, keeping clean, protecting from frost, and so forth; but the climax of interest is reached when it comes to harvesting the crop. Having secured the necessary pickers (which sounds easy), they must be housed and—"treated" I was about to say—but "entertained" expresses the need more fully, in such a way as to hold them through good and evil report, and picking while the season lasts. Picking should be done with care and neatness. The berries must be pinched off with a short stem without bruising the fruit and the soft and smallest berries discarded or left on the vines. The boxes should be filled a little over level to allow for settling and packing; they must be full or nearly so on reaching destination. Pickers should not be allowed to take more than eight boxes to the patch at one time, so that the berries may come to the packing house fresh and cool. In order to carry out the outlined program it is sometimes necessary to pay a small premium to pickers who comply with the ideal requirements.

"Packages, both small and large, should be clean, neat, and attractive as possible. The packer should dump a few boxes occasionally from each picker to see the contents, and should see that berries and crates are kept in the shade until time for shipment.

"The most satisfactory market is at the home railway station or cannery. Distributing the crop can be done much more intelligently by large dealers than by individual growers, and the area of distribution be thereby largely increased. Varieties that are firm should be selected for long distance shipping, and in no case should berries of different varieties be packed in the same crate. The size of our boxes is fixed by law, and the popular crate appears to be one holding from twenty-four to thirty-six quarts. The large returnable crate is rg less used year by year."

There is no better mulch than thorough cultivation.