In spring, just before the leaf buds open, spray thoroughly with the diluted Bordeaux mixture, or before the buds swell with the simple solution of sulphate of copper. Repeat the application of Bordeaux just before the blossoms open, and again just after the blossoms fall (these two applications are most important); if necessary, repeat again in ten days' time, but do not use the Bordeaux mixture late in the season, or it may roughen the skin of the fruit. If late spraying is required, use the carbonate of copper mixture. (*See* "Spraying Mixtures.")

Treatment.

Pear scab (*Fusicladium pyrinum*) is also generally reported from all coast districts. This disease is very similar to apple scab, believed by many botanists to be the same species. At any rate, the chief points in its life history and remedial treatment are the same as for the "apple scab."

Pear scab.

Pear-leaf blight (*Entomosporium maculatum*) is reported generally from districts in the Lower Province, and from Kelowna and Salmon Arm in the Interior. This is probably the most generally destructive fungus disease to which the pear is subjected. It appears early in the spring, soon after the leaves develop, first as minute, dull reddish spots on the upper surface of the leaf. A little later the spots appear on the lower surface of the leaf, which becomes darker in colour; as the fungus develops the spots enlarge, until nearly the entire leaf is affected and becomes sere and brown. Very young leaves sometimes curl up when attacked; the stems and fruit are also attacked, the pears cracking open and becoming worthless.

Pear leaf Blight.

The effect upon the tree is very injurious; it is unable to store up the materials of growth properly, and becomes weak and impoverished. Hundreds of pear trees in the Coast districts, which used to produce fine fruit, of late years have been valueless from the effects of this disease.

Where Bordeaux mixture has been used according to the directions given, infested trees have recovered, and are again producing healthy foliage and clear fruit. But it must be remembered that many trees are so badly injured by this and other fungus diseases that two seasons are required before trees will become productive again, owing to the loss of fruit spurs and buds, which have to be reproduced.

Bordeaux mixture, used as for apple and pear scab, is the best preventive, and the carbonate of copper solution, No. 10, for late spraying on trees bearing fruit.

Remedies.

Dead Spot is reported from all districts of the Lower Provinces, as prevailing to a greater or less extent, in many instances killing young trees. There is still great diversity of opinion in regard to this disease or condition of the apple tree. Prof. L. B. Pierce, who was specially detailed by the United States Department of Agriculture for the purpose, has been making a careful, systematic investigation regarding the disease as it occurs in Oregon and Washington, and although the investigations are not complete, it is stated that "dead spot" is the result of a parasitic fungus, which is probably transmitted from tree to tree, by means of spores blown by the wind, or carried by insects, &c. Mr. M. O. Lownsdale, of Lafayette, Ore., who has also studied the disease, writes me in regard to it as follows:—

Dead Spot Apple bark disease.

"Dead Spot is caused by a deep-seated fungus that finds its sustenance in the inner tissues of the bark and only appears on the surface for the purpose of spore formation and reproduction. The mycelium of the fungus spreads in various directions through the bark and can generally be cut out without any injury to the tree, stripping off all the dead outer bark and diseased tissue. After the fungus has attained its growth, it produces its spores in small excrescences on the surface of the dead spots. These little pustules burst, when the spores escape, and are carried by the air and insects to other trees and other portions of the same tree. They germinate in autumn, and begin to penetrate the bark at once and repeat their cycle of growth. The spore-bearing vessels burst during July and August, and as no spray can reach the fungus after germination, a midsummer spraying, when the trees are badly infected, is desirable."

Its Cause.