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PROVINCE OF BRITISH COLUMBIA.

DEPARTMENT OF AGRICULTURE—HORTICULTURAL BRANCH.

FIRE-BLIGHT

(BACILLUS AMYLOVORUS—BURRILL).

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THE fire or pear blight has been known for many years as a serious disease of apples, pears, and occasionally quinces. Lately the disease has been reported as attacking plums and apricots. In some districts the disease has wiped out whole pear-orchards and caused more loss to the fruit-growers than all other factors combined. In British Columbia it has proved a very serious disease for the apple. Besides the trees mentioned, the hawthorn (*Crataegus*), the June berry (*Amelanchier*), and the mountain-ash (*Pyrus*) may also be attacked.

CAUSE OF THE DISEASE.

The fire-blight is of bacterial origin. The organism causing it is a small rod-shaped body, measuring about 1-10,000 of an inch long and about 1-45,000 of an inch wide. This germ commonly enters the plant by way of the blossoms, where it multiplies in the nectaries of the flowers and finally extends into the near-by twigs and leaves. It may enter growing shoots, limbs, or trunk through the agency of various insect pests. Having once gained admittance to the plant, the bacillus, if conditions are favourable, multiplies rapidly, feeding upon and destroying the cells of the inner bark and cambium. It winters over in the form of "hold-over" cankers on the limbs or trunk of affected trees.

SIGNS OF THE DISEASE.

As a rule, the disease makes its first appearance in the form of "blossom-blight." The tips, blossoms, and leaves will be seen to wilt, becoming dark brown or black, and finally shrivel up, presenting a scorched appearance. The bark at first has a dark water-soaked look, but later it becomes hard and dry.

In the twigs and smaller branches the disease is known as "twig-blight." Water-sprouts and other young rapidly growing shoots are particularly liable to attack. Where the disease is active, blisters will appear on the bark, through which will ooze a thick gummy substance, light yellow in colour at first, but hardening in the air it becomes dark red or brown. The leaves borne on such shoots have the characteristic scorched appearance. In many cases the disease is confined to the twig form and spreads no farther.

Frequently, however, it enters the main limbs or trunk by passing down twigs or water-sprouts. The bark will take on the water-soaked appearance and the