

to be buried at this time - at 3 inches. The satisfactory disposal of these mummies, especially in the case of large cherry-trees, is one of the main difficulties in the control of the disease. Fruits should be thinned so that no two touch each other, since enough moisture may be held at such points of contact to enable spores of the fungus to germinate and produce infection. Trees should be thoroughly sprayed with winter-strength lime-sulphur before the buds break. Later sprayings will be necessary for protection of the fruit, but the nature of the spray material and the times of application will depend partly on the susceptibility of the tree to spray-injury, and partly on the time when the fruit is sufficiently advanced to be disfigured by the presence of spray material. In the case of peaches, and some plums, which are particularly sensitive to this form of injury, it is generally found necessary to use the self-bolled lime-sulphur, although it is claimed for atomic sulphur that it is both safe and effective. For most cherries 2-3-40 Bordeaux mixture is safest, while for some plums, including probably prunes, 4-4-40 strength might be used. The first of these sprayings should be given two or three weeks after the petals fall, and another one about a month before the fruit is expected to ripen. An intermediate spraying may also be necessary.

POTATO.

Farmers' Circular No. 4 of the Division of Botany, Dominion Department of Agriculture, entitled "Potato-diseases transmitted by the Use of Unsound Seed-potatoes," gives excellent coloured illustrations of various tuber-diseases, as well as recommendations for their control. It should be in the hands of every grower. It may be obtained free of charge by writing to the Publications Branch, Department of Agriculture, Ottawa. Letters of application so addressed need not be stamped.

EARLY BLIGHT (*Macrosporium solani*).

This disease attacks the leaves only. It appears as circular or elliptical, dark-brown or black spots, which often show a concentric zoning. Where these spots are sufficiently numerous the whole leaf may finally present a scorched appearance resembling a bad case of "tip-burn." Infection often follows minute injuries such as those caused by flea-beetles, but these are not necessary for infection. Dry seasons and climates usually favour the disease, although it can be quite bad under fairly moist conditions. The name "early" blight merely implies that it is noticeable earlier in the season than the "late" blight, and not that it is restricted to the early part of the season.

Control.—Spray with Bordeaux mixture, 4-4-40, beginning when the plants are 6 inches high or less. The disease, however, is only occasionally serious enough to warrant special measures.

LATE BLIGHT (*Phytophthora infestans*).

This is a very serious disease in the moister sections of the Province, especially on the Lower Mainland. It is first noticed on the leaves, where purplish or brownish-black, irregular spots appear which rapidly extend if conditions are favourable. They commonly occur first on the tip or edges of the leaf. Often a mouldy growth may be observed around the margins of these spots on the under-side of the leaf. This is composed of spore-bearing threads pushed out through the breathing-pores (stomata) of the leaf. If the conditions are right—that is, if the weather is moist and moderately warm—the disease may spread with great rapidity, so that the tops of an entire field may be completely destroyed in a few days. A peculiar unpleasant odour is given off from the diseased tops. The rapidity with which the disease may spread is largely due to the peculiar character of the spores produced. These are at first much like the summer spores (conidia) of many other fungi, and are scattered easily by the wind and rain. Their usual behaviour, however, is different. Should one fall on a moist spot, such as the film of water on a leaf after rain, and