

place and the young larvæ become discernible to the naked eye as small cream-coloured dots, moving, in proportion to their size, comparatively rapidly over the bark. They are wingless and very delicate at this stage, and their sole object is to find a suitable spot upon which to settle and feed. After a few hours' activity they establish themselves, insert minute sucking mouth-organs, with which they are provided, into the bark and commence to suck the sap. Once the female has settled on a particular spot she never moves again to take up any other position on the tree. The young larvæ gradually excrete a waxy substance over their bodies which forms and hardens into the familiar scale or protective shield. In the autumn or during the winter the female, which remains for ever wingless, dies beneath the scale she has constructed, leaving behind her complement of eggs. The male insect undergoes a similar metamorphosis in the early part of the summer, but later in the year, about July, emerges with wings which apparently are only strong enough to enable it to reach and fertilize the stationary female.

#### Means of Control.

A study of the life-history of this insect reveals the facts (1) that it is single-brooded, (2) that it has a reproductive capacity of an approximate average of 60 eggs, and (3) that it is not capable of much movement. Thus a commercial orchardist has no right to claim this insect as an important fruit-tree pest, on the understanding that practical horticulture to-day demands proper attention to timely applications of spray. A thorough application of lime-sulphur, 1-30 or 35 (specific gravity 1.009), immediately after the petals fall, under ordinary circumstances suffices to hold this insect in check. Moderately severe cases of infestation may be treated also with a winter strength lime-sulphur solution at the time the buds are bursting, to act as an additional means of control.

In some of the older orchards of the Province, where trees are encrusted with superfluous bark and growth of lichens (locally referred to as "moss"), an application of Gillett's lye at the rate of 1 lb. to 4 gallons of water will be found advantageous. This may be performed in the autumn and applied direct to the trees by the most convenient method.

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This circular has been prepared by R. C. Treherne, Field Officer for British Columbia, Entomological Branch, Dominion Department of Agriculture, at the request of the Horticultural Branch.

Copies of this circular may be obtained free of charge on application to the Horticultural Branch, Department of Agriculture, Victoria, B.C., or from local branch offices of the Department.