

All fallen fruit should be promptly collected and destroyed before the caterpillars have time to emerge.

LEAF-CHAFER.

I was informed that a small brown beetle frequently attacked the leaf of the apple in several districts during the early summer months, and in the Waikato I saw large quantities of apples disfigured during the early stages of growth, and often curiously warted or even distorted, not improbably by the same beetle; but I was unable to obtain specimens of the insect.

In the North it was spoken of as the "Maori bug," but this name is misleading, being commonly applied to the *karamu*, so well known on account of the unpleasant odour which it emits when touched.

GRASS-GRUB (*Odontria zealandica*).

See under "Olive," page 17.

APPLE-BLOSSOM WEEVIL (*Anthonomus pomorum*).

At present this troublesome beetle has been noticed only in a single locality—the experimental orchard at the School of Agriculture, Lincoln, where it was observed in November last that all the blossoms on a single tree had been destroyed. In all probability it will prove to be not infrequent, and in late seasons cause much injury if allowed to remain unchecked.

The first indication of the attack of this insect is afforded by the condition of the flower-buds, which often exhibit a healthy and luxuriant appearance almost up to the point of full expansion, when further development is arrested, the petals wither and become matted together, and the prospect of fruit is entirely destroyed for the season. On examination it is found that every flower-bud exhibits a minute perforation, and that the stamens and pistils have been destroyed by a minute white grub one-eighth of an inch in length.

As soon as the buds are sufficiently developed for the white colour of the petals to be distinguished, they are perforated by the female insect, and an egg is deposited; the egg is hatched in about a week, and the grub commences to destroy the essential parts of the flower; the petals wither and become matted together, and as soon as the food-supply is exhausted the grub enters into the pupa-state, which is passed in the withered flower. The perfect weevil is developed from the pupa in less than a month from the time at which the eggs were deposited, and feeds on the leaves for the remainder of the season. On the approach of winter it takes shelter under stones or in crevices of the soil, or amongst loose bark and moss. The perfect female is less than an eighth of an inch in length, and is furnished with a long curved proboscis. She is reddish-brown in colour, with light patches behind the head.

Eggs cease to be deposited as soon as the flowers are fully expanded, so that the season during which this inconspicuous pest can work mischief is of the briefest, but it is unfortunately sufficient to enable it to destroy all prospect of a crop for the season. The female, being wingless and passing the winter season at the foot of the tree, may be prevented from ascending by tying narrow strips of brown paper saturated on the outside with tar mixed with a little fish-oil round the stem of the tree. These bands should be tightly attached round the upper margin, and the oil should be sufficient to prevent the tar from becoming dry during the period necessary for the expansion of the flowers.

Should the weevils not be observed until the buds are attacked, syringe freely with a strong solution of caustic potash; this will kill the grubs and prevent the development of newly-laid eggs.

As the period of flowering is necessarily prolonged by cloudy weather, it follows that the insect has a longer period in which to deposit its eggs, and therefore requires to be more closely watched.

APRICOT.

SCALE.

THE apricot is occasionally attacked by at least two species of bark-scale, for which the best remedy is the mixture of castor-oil and soot, with the addition of soapsuds.

For fuller particulars, see under "Apple-scale," page 7 *ante*.

CANKER-WORM (*Ctenopseustis obliquana*).

The caterpillar of this moth is very injurious to the apricot, feeding on the leaves, which it fastens together by viscid threads, and attaches them to the ripening fruit, when it feeds upon the epidermis and under-surface, rendering the affected apricots unfit for market.

I was informed that the caterpillar makes its first appearance in December or January, and continues feeding for nearly three months on the leaves of the apricot, apple, and plum, but doing the greatest injury to the apricot. The caterpillar may be found in the orchard as late as the middle of May.

It has been mistaken for the European winter-moth (*Geometra brumata*), but that species has not been found in New Zealand, and in Europe attains its perfect state during the winter months, November and December. The females have only abortive wings.