

Prof. J. B. Smith recommends the use of "dendrolene" for the purpose, as it remains in a viscid condition for a long time. It should be applied on a band of thick wrapping paper put round the trunk, about six inches wide, and spread a quarter of an inch in thickness over the wrapping paper. Tar mixed with oil to prevent its drying, may be used in the same manner, or printer's ink, if the first-named substance is not available, but to be effective must be kept sticky by frequent renewal. Fluffy wool or cotton banded round the tree has also been used with good results, but is not so certain a preventive.

Infested trees should be sprayed with Paris green (*see* Spray No. 9) soon after the worms hatch.

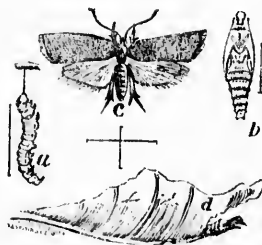
The name Apple Fruit Miner has been given to a small larva of one of the tortricid moths. It feeds upon the pulp of the apple, tunnelling through it in all directions, completely spoiling the fruit, when, as is often seen, several larvae are present in one apple.

This pest was very plentiful in Chilliwack and Mission City Districts the past season, which is the first in which the ravages of the insect have attracted much attention, though it has been noticed occasionally in previous years. It is also reported from parts of Vancouver and other islands, and is apparently widely distributed, though until the past season not noticed to any extent.

Its life history has not yet been worked out. Mr. E. A. C. Gibson, of the Department of Agriculture, is, however, making a special study in this line.

So far the only practical way of dealing with the pest, which suggests itself, is the destruction of all infested fruit, and this should be carefully attended to. A thorough cleaning of the orchard, and the burning of all prunings and other rubbish is also recommended.

It is probable that this is a native insect, as it is found in large numbers on the fruit of the wild crab, so that its natural enemies may be expected to help the fruit-grower in dealing with the pest.



THE LESSER APPLE-LEAF ROLLER.

(a) Larva. (b) Pupa. (c) Moth. (d) Folding case of leaves.

The caterpillar of the Lesser Apple leaf Roller (*Tortix minor*) is a greenish-yellow larva, smooth, with a pale brown head and whitish markings, affecting the young leaves of the terminal twigs, with which the insect forms a protective case. This species is remarkable in that two of the three broods of moths which appear during the year are of a bright orange colour, while those of the third brood are reddish gray. It is an example of what naturalists call dimorphism.

The eggs are laid in the spring, on the unfolding leaves of apple and other trees and bushes, the larvae soon hatching and feeding on the young foliage, some of which they roll into a protective covering.

Here they continue feeding for about a month, when they pupate within the folded leaves, and a week or so later emerge as small orange yellow moths. These moths lay eggs for another brood of larvae, the moths of which are also yellow, and they in turn lay eggs for a third brood, which develops in the fall as reddish gray moths. These winter in sheltered places and in the following spring deposit their eggs as previously stated.