1-1-1968

The carob moth [Replaced by Farmnote 156/83.]

P. J. Michael
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THE CAROB MOTH* was introduced from the Mediterranean region where it is an economic pest. Under Western Australian conditions its importance is limited to almond crops although it occasionally attacks other fruits.

The insect is abundant in the Perth area but is uncommon in the South-West orchards. Local host plants are carob beans, almonds, oranges, apples, figs and pomegranates, while elsewhere known host plants include pears, quinces, loquats, peaches and apricots. Carob beans and almonds are the major host fruits, but others are not so favourable and some may even kill the caterpillars because of their exudations.

Description and life history

The greyish adult moth has a wingspan of $\frac{3}{4}$ inch and the pale pink caterpillar is about $\frac{3}{4}$ inch in length.

After mating during spring, female moths usually lay their eggs on the splitting portion of the almond fruit. Caterpillars hatching from these eggs feed until fully grown and then usually pupate within the fruit, although sometimes in crevices on the tree or on the ground.

Moths emerging from the pupae lay eggs to commence the second brood of caterpillars and a third generation may follow before the cool weather of autumn causes existing caterpillars to become dormant. The annual cycle is completed when higher spring temperatures cause the over-wintering insects to pupate and emerge as moths in time to attack the new season’s fruit.

Nature of damage

Almonds become vulnerable as soon as the green husks begin to split and from then on the caterpillars may feed on the

*Ectomyelois ceratoniae* Zell.

Eggs are laid by the moth on the almond fruit

The caterpillar commences feeding on the shell of the fruit
The shell may be entered and the kernel eaten

shell, or penetrate to the kernel if the almond has a soft shell.

Citrus fruits drop off after they are damaged, in spite of the caterpillars being repelled by exudations from the site of entry. Other fleshy fruits are damaged when the caterpillars feed on the seeds or near the stone.

Confusion with other insects

Fruit damage caused by the carob moth may closely resemble that caused by several other superficially similar insects.

A storage moth is often thought to be the culprit when spoil almonds are opened after a period in store and there may even be a mixture of storage moths and carob moths present at the same time.

The codling moth and carob moth caterpillars are alike and the similarity of the fruit damage they cause has led to their confusion elsewhere.

Almost all caterpillars to be found in oranges in this State belong to the carob moth and are not to be confused with other well-known orange pests.

Control of the carob moth

The only fruit worth protecting from the carob moth is the almond. Existing routine sprays limit carob moth numbers in orchards, but in backyards where almonds sometimes remain on the trees during winter most of the nuts are often infested.

Collection of all fruits and destruction of those infested would reduce the number of overwintering caterpillars considerably, However, this is not always carried out because many trees are too large and the fruits within easy reach often satisfy the owner.

Sprays

When insecticides are used, two sprays should be applied one month apart with sufficient volume and care to thoroughly wet the fruit. The timing of the first spray is critical and should coincide with the splitting of early fruits. A 0.1 per cent. DDT emulsion may be used on a small scale but for large areas Azinphos at 0.05 per cent. or Carbaryl at 0.15 per cent. are recommended.
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Journal of Agriculture, Vol 9 No 2 1968