

Codling Moth

The larva or caterpillar of the codling moth (*Cydia pomonella*) is a serious pest of apples. It occasionally attacks pears.

Typical symptoms

Codling moth larvae, also known as apple maggots, eat into maturing fruit. A single larva enters each fruit through the eye if the fruit is small, but otherwise near the stalk. It initially forms a small cavity below the skin, and then after a few days it burrows into the core leaving a prominent, red-ringed, entry hole blocked by dry 'frass' (maggot droppings). A large proportion of the fruit flesh can be eaten away and the cavity becomes filled with brown frass. After feeding for about 4 weeks, the larva escapes through a small unplugged exit hole. Damaged fruits tend to ripen and drop prematurely.



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Codling moth damage should not be confused with apple sawfly damage; sawfly also burrow into the fruit but they produce masses of black, wet frass which is pushed to the outside. Sawfly damage also usually occurs earlier in the season in May or June, on younger fruits.

Description of pest

The larvae are pinkish-white with mottled brown heads, 18-20mm long. The adult moth is mottled grey-brown in colour, about 8mm long and with a wingspan of 15-22mm. It has a large characteristic bronzy-black blotch near the tip of the wings. The adults fly at night, so are seldom noticed.

Life cycle

The female moths lay single eggs on fruits and leaves in June/July. The eggs hatch 10-14 days later and tiny larvae immediately burrow into the fruit and feed for about a month. They then leave the fruit and crawl down the trunk to spin a cocoon under loose bark, tree ties etc. Larvae that reach this stage by the end of July may emerge as adults the same season to give a second infestation during August and September. The majority will not emerge until the following spring.

Prevention and control

- **Encourage natural controls:** Make your garden a friendly place for a range of helpful creatures by avoiding harmful sprays and providing suitable wildlife habitats. Encourage birds to your trees by providing them with some food in the winter. Blue tits are especially adept at searching out and consuming the overwintering moth cocoons. Do not kill earwigs, they will eat codling moth eggs.
- **Remove windfalls and leaf litter:** Always pick up and remove windfalls soon after they have fallen and remove leaf litter in the autumn. Remove any tree ties in the autumn in case they contain cocoons. Replace with new ones.
- **Pheromone traps:** Pheromone traps for codling moths are available to buy. They contain minute quantities of female codling moth pheromone. This attracts male moths, which are then trapped on a sticky base. Hang the traps in trees from mid-May to September. Each trap will protect up to 4-5 trees. Once trapped, the males are no longer available for mating.
- **Nematodes:** The nematodes are applied as a spray to the trunk, main branches and soil beneath the tree. The areas need to be dampened first. Apply 3 times, a week apart, in September and October to kill off overwintering pests, and prevent an outbreak the following year.
- **Cardboard traps:** Another approach is to trap the pupae of the moths by providing a suitable site for them to pupate. Cut a 50cm strip of large-core corrugated cardboard. Wrap round the trunk so the corrugations are vertical, about 45cm above ground level. Put the traps in position in July, remove and burn them in the autumn. This method is most effective on smooth trunks. If your neighbours also have fruit trees, try and encourage them to do the same, otherwise your efforts will have limited effect.

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