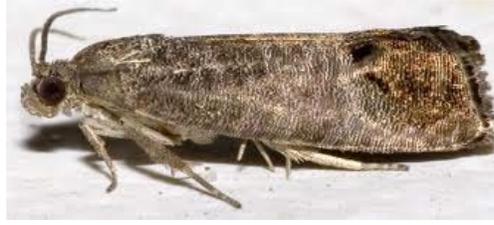


# Codling Moth



Codling Moths, *Cydia pomonella*, attack apples and pears. Males are attracted by pheromones, not visual cues (unlike the apple fly maggot). They have been significant pests in apples and pears for the past 200 years.



The larvae tunnel into the core, where they feed (unlike apple fly maggots, which feed on flesh throughout the apple). As they eat, the larvae push their excrement out of the fruit through the entry hole, where it appears as “frass.” The larvae leave trails from the skin, where they enter, to the core. Damage occurs to the fruit throughout the summer and fall.

**Life Cycle.** To reduce infestation by codling moth, it’s important to understand—and interrupt—the insect’s life cycle. Like the apple maggot fly, it has three stages: adult, larvae and pupae.

**Adult.** There are typically 2 generations of adults. The first adults begin to emerge in late April/early May and can be seen flying around trees from May through July. They lay eggs immediately, usually on leaves. Once these larvae hatch, mature, and pupate, a new generation of adults can emerge in late summer (mid-July to early September). Adults are slightly larger than a house fly (about ½”)

**Larvae.** Damage to fruit is done by the larvae. They emerge in 1 – 2 weeks, enter the fruit and move to the core, where they eat seeds and flesh. After about a month they leave the fruit to pupate. The full-grown larva has a dark head capsule and thoracic shield (unlike the apple fly maggot, which is all white). The later (2nd generation) larvae do more damage than earlier larvae.

**Pupae.** Mature larvae leave the fruit and tuck themselves under loose bark scales on the tree, in leaf litter at the base of the tree, or on nearby objects. They form cocoons prior to pupating. The cocoon is creamy gray.



## Management

**Sanitation.** Harvest all infested fruit before the maggots emerge to pupate. Pick up all fallen fruit at least twice a week and dispose of these safely. Do this for two years. This interrupts the life cycle by destroying maggots before they become pupae.

**Banding.** Banding the tree trunk with corrugated cardboard or burlap will collect some of the larvae migrating down the trunk to pupate. Bands should be in place by June, and even on smooth-barked trees, where they work best, bands only collect a percentage of the larvae. Wrap a 4” wide strip of corrugated cardboard in several thicknesses around the trunk about 18” or more’ from the ground. The exposed ridges should face the tree, and should be vertical. Remove bands and destroy the cocoons once a week and inspect the tree bark for cocoons. With burlap bands, fold the burlap into bands that are about 5” wide and wrap the band around the tree about 1-1/2 times with the folds facing down. It should be 2–3 feet from the ground. Make sure the bands are snug.

**Traps.** Because the codling moth is attracted by pheromones, a pheromone jelly plus an insecticide (permethrin) is used in traps to attract and kill male moths (e.g., LAST-CALL™). A new product, Pherocon CM-DA Combo, attracts and kills males and females. Sticky traps with pheromone attractants can be used to monitor the number of codling moths in the vicinity. They aren’t useful for controlling moths.