

THERE'S A WORM IN MY APPLE

By Carol Ponchet-Cassidy

Have you ever bitten into an apple only to discover that you're not the only one eating it? What we commonly refer to as "a worm in our apple" is actually not a worm at all but the young larvae of a moth.

The Codling Moth (*Cydia pomonella*) is a familiar intruder into our carefully tended fruit trees. The larvae enjoy feasting on apples, pears and, occasionally, English walnuts.

To deter these little moths from making their home in your trees, it's helpful to understand their life cycle. Codling moths start laying their eggs on the developing fruit and surrounding leaves sometime in May when the daytime temperatures reach 15 ° to 17° Celsius or hotter.

The female lays her eggs in the same tree in which she mates. She emits a special smell, a sexual pheromone, to attract a mate. The male follows his nose so to speak, finds the female and they mate. She then lays her eggs.

Once the larvae have hatched, they waste no time eating their way into the fruit, leaving a pile of brown excrement called "frass" at the entry point. They eat their way into the core and then out the other side.

There can be several generations of codling moth if the summer is long and hot. The adult moth measures 15-22 mm. (.58 - .85 in.). Its front wings are gray or brownish with dark cross lines and a large coppery patch near its head. The hind wings are pale brown with a fringed border. The adult moths are most active at dawn and at dusk. The larvae are small, cream-colored and have a dark head. They resemble fly maggots, but are actually caterpillars.

Here are some suggestions that may help fruit tree gardeners control the damage caused by codling larvae:

DORMANT OIL:

In the spring, after the tree is pruned, apply dormant oil in the spring before the buds open. Spray the oil, covering the entire tree. The oil will seep into any cracks and crevices in the bark and coat the overwintering larvae. Since most insects breathe through their skin, they will be suffocated.

MATING DISRUPTION:

As mentioned earlier, male codling moths follow the pheromone trail of the female. If a substance that produces a strong odor, such as garlic permeates the tree, it becomes more difficult for the male to find the female and some mating disruption occurs. Hang whole cloves of garlic that have been pierced (not crushed) with a pin around your tree. The higher up you can place them, the better. If you can no longer smell the garlic odor up close, then it's time to replace the bulbs. For an average 4.5 m. (15 ft.) tree, 5 to 7 bulbs of garlic would be sufficient.

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BANDING:

Wrap 15.2 cm. (6 in.) wide strips of corrugated cardboard, the corrugated side facing inward, around the trunk and some of the main limbs. Check it every week. What you'll be looking for is the pupating larvae wrapped lightly in white silk. Replace the cardboard strips when needed, and burn or otherwise dispose of the infested strips. Continue to use the cardboard strips right through until September.

PHEROMONE TRAPS:

These traps look like small milk cartons with an opening cut in them. The insides are coated with a sticky substance, and they are also sprayed with the female pheromone. Essentially, they attract and trap the males. This can be a useful way to monitor moth activity around your tree.

PAPER LUNCH BAGS:

If you have a large, mature tree, and you only pick the fruit from the lower branches, you can protect a selected amount of fruit by putting brown paper lunch bags over them and fastening the bag to the branch with a twist tie. It will look funny and spark lots of discussion, but the end result will be clean, unblemished fruit. Remove the bags about one week before harvest to allow the fruit to color-up in the sun.

STRIPPING:

This is a last resort method, but it is quite effective! Remove, or "strip" all of the fruit from your tree(s) as soon as you see them developing. Obviously, you won't have any fruit that year, but neither will the codling moth! This method is a good way to really "clean" the tree. Doing a dormant oil spray the following spring would also be a wise precaution.

WEEKLY MONITORING:

Check the fruit on your tree on a weekly basis. Look for any sign of codling larvae activity. Looking for the telltale pile of "frass" on the fruit's skin. Remove any infested fruit that you find and bury it or put it in the trash. By doing this, you lower the codling larvae population on your tree.

Monitoring will also reduce the risk of rot. Often, rot develops along the trail of the larva. As a result, neighboring fruit is also infected.

SANITATION:

Last, but certainly not least, is sanitation. Codling larvae over winter on the ground as well as in the bark of older trees. Keep all weeds under control and rake up any debris under and around the tree. It is not recommended that you place any debris from a fruit tree into your compost pile. Codling larvae will easily over winter there along with other undesirable pests and diseases. It's best to burn, bury or haul away all debris from your fruit trees.

It's virtually impossible to completely eradicate codling moths, however, with some diligent gardening practices; you can significantly improve the quality of your fruit tree harvest, and, lessen the risk of biting a worm!