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SUMMARY

Trapping and sanitation techniques can help you control codling moth and save your fruit without concerns about using pesticides on your food crops.

The Time to Fend Off Codling Moth Is Now

by Emma Connery, UC Master Gardener Program Coordinator

Got worms in your apples and pears? Here's an organic approach to managing the problem.

If you found yourself last summer and fall with a harvest of wormy apples and pears, then you have codling moth. By the time you see the damage, typically at harvest, it is too late to protect that year's crop - your preventative tactics need to take place now, in the spring.

Codling moth is a common and serious pest in apples, pears, and even in walnuts but calls received at the Master Gardener Help Desk are always about apples and pears. And those are not really worms, either, but rather caterpillars, a common term for the larvae of butterflies and moths.

You probably would never even notice the adult moth, *Cydia pomonella*, as it is only about ½ to ¾ inch long with mottled gray wings, and it is only active a few hours before and after sunset. The adult moths emerge from pupation in early spring; the female mates then lays her eggs (30-70) on either leaves or fruit. The eggs hatch and the larvae chew into the developing fruit. The larvae

continue to develop inside the fruit where they are protected from any chemical controls. When larvae are mature they exit the fruit to pupate in the soil or on debris under the tree or in bark crevices. The cycle then starts all over again with 2 generations per year in coastal areas and 3-4 inland. The most effective approach is to manage the first generation of the season. Left unmanaged, codling moth can infest up to 90% of the fruit. To reduce the population of this pest without toxic chemicals you can use trapping and sanitation techniques.

Traps:

Codling moth pheromone traps (sticky traps laced with pheromone) attract and capture the males. Fewer males make it more difficult for the females to mate. Hang traps starting in mid March (inland areas) to late March (coastal areas) when the emerging adults are expected to start flying. Use one or two per small tree and two to four per large tree and hang them high in the canopy.

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Codling moth pheromone traps are typically available at hardware stores, garden centers, or online.

You can also prepare a homemade bait trap that attracts both males and females. The bait is a solution of 1 cup cider vinegar, 1/3 cup dark molasses, 1/8 teaspoon ammonia, and enough water to make 1-1/2 quarts of liquid. Put the bait solution into a 1-gallon plastic milk jug that still has its lid and in which you have cut a 2-inch diameter hole just below the shoulder. Hang the jug by its handle using a wide strip of cloth to disperse the weight. Use up to three of these traps per large tree. Use both the pheromone traps and the bait trap to maximize control.

Sanitation:

Sanitation should be an integral part of any codling moth control program.

Beginning about six to eight weeks after bloom, start checking fruit for sawdust-like filled holes (larvae entry holes in the fruit). Check every week or two and remove the infested fruit from the tree and the ground. Dispose of it in your yard waste, not your compost pile.

Sanitation and trapping may be all that is needed when you have an isolated tree and low codling moth populations. But, if populations have been allowed to build up over a number of years you may need a more aggressive approach to achieve satisfactory control.

For more information on the management of codling moth go to the UC IPM Online - Statewide Integrated Pest Management website:

<http://ipm.ucanr.edu/PMG/PEST-NOTES/pn7412.html>