

DIG THIS by Peg Tillery (for 10-17-07) Apple Maggots and Fly Predators © 2007

Apple Maggots have still been the topic of discussion in our Master Gardener clinics over the last few weeks.

The stages of the cycle of apple maggot growth and reproduction are why you'll want to clean up all fallen apples right now if you haven't already done so. Double bag the apples and dispose of them in the garbage. Some research says you can bury the apples if you dig the hole at least 18 inches deep. All literature says not to compost the apples.

As the maggot burrows its way out of the apple it leaves spots of bacteria in the fruit. At first the bacteria is just small brown dots. Later the dots enlarge and will eventually turn into big mushy spots on the outside of the apples. This bacteria cycle is why you won't want to use any of the apples in food preserving or cooking. The bacteria give off a toxin that can develop into poisons affecting human digestive systems. You would not want to take this chance.

Local gardeners are finding success in preventing apple maggot damage by using footies around the fruit. If you don't get the footies on the developing fruit early enough or the top isn't tied around the stem tight enough, the fly can lay its egg through openings onto the fruit anyway. Then when the apple maggot burrows through the fruit and makes its way out it will eat through the footie rendering it useless and also making another entrance hole for the adult apple maggot fly to lay eggs in the fruit.

Put the footies on in early spring as soon as the fruit starts to form. The fruit will be green at that time and about as big as your thumbnail. You'll be able to do two apple growing chores at the same time. When you attach the footies, you'll also thin your fruit by reducing each cluster to one or two fruits. Footies will stretch as the fruit grows. The female fly does not like the feel of the footies which are not smooth like the skin of an apple.

Another product that works and is considered organic is kaolin clay (sometimes marketed as surround). It has to be applied on a regular basis though to keep the fruit coated and prevent the fly from laying eggs in the fruit.

The Washington State University Tree Fruit Research and Extension Center in Wenatchee has been studying the use of apple maggot parasitic wasps (using *Biosteres mellens*, *Opius downesi* and *Pteromalus*) and as yet have no significant results to report.

One local Kitsap County gardener (who chose to be anonymous) orders "Fly Predators" from Spalding Laboratories to control horse flies on her farm. She's been using the fly predators for about five years now. The fly predators are released onto horse and cow manure where their life cycle begins. When the adult emerges it goes in search of the maggots in the soil or manure. The fly predator lays eggs in the pupae and the eggs hatch into fly predator larvae that eat their way out of the pupae before it can become a maggot.

It took about three years for this particular gardener's apple maggots to go away in her apple orchard. She continues the process each year though.

Fly predator information is provided today in the column only as an anecdote and does not imply endorsement of any product. To learn more about fly predators visit http://www.spalding_labs.com/whatAreTheFlyPredators.php and <http://tfrec.wsu.edu/InsectRef/AppleMaggot/applemaggot.htm>.