

Gypsy Moth Management for Homeowners on Small Properties

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Background. The gypsy moth, native to Europe and Asia, is a major invasive pest of hardwood forests in the U. S. Introduced into Massachusetts in 1869, the gypsy moth has rapidly moved into other regions of the country and is responsible for large amounts of defoliation each year. Most of Virginia is generally infested by this pest. Visit

<http://fubys.ento.vt.edu/vagm/> to read more about the gypsy moth biology and control.

Management. The most effective means of treating gypsy moth populations is with chemical or biological insecticides. This is especially true in forested areas where there are many large trees and a closed forest canopy. However, the simpler "hands-on" tactics discussed here can be effective when used on small lots with few trees and a relatively open canopy. It also is best to combine tactics, such as egg mass treatments followed by tree banding. Many insecticides registered for gypsy moth are available over the counter and may be used in conjunction with the methods described here.



Female gypsy moth and egg masses.

Egg mass treatments (prior to egg hatch). Since each egg mass contains from 500 to 1000 eggs, destruction of egg masses before hatch can have an impact on populations. Starting in the fall, search your property, including trees, outdoor furniture and play equipment, for egg masses. In some areas of

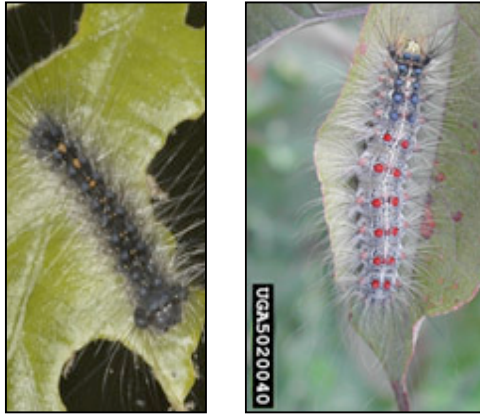
VA, eggs hatch as early as mid-March, so egg masses must be destroyed before that time.

- Using a putty knife or similar tool, scrape the egg masses into a plastic bag or can. Once collected, empty the contents of the bag into a container of soapy water (dish soap works well) and soak for a day or two.
- An option to physically removing egg masses is to saturate egg masses before hatch with a solution of horticultural oil labeled for gypsy moth (available at garden stores). This will smother the gypsy moth larvae (caterpillars) within the eggs. This solution is available commercially as Golden Pest Spray Oil® (Stoller Enterprises, Inc.), or you can make your own using soybean oil and water (1:1). Use a small spray bottle, household sprayer, or "super-soaker" water gun to soak the egg masses.



Treating an egg mass with oil solution

Tree banding (after egg hatch). Some young larvae and most older gypsy moth larvae tend to migrate down the tree during the day to seek shelter. A variety of methods can be used to capture and kill older larvae. Homeowners should be aware that banding is a popular "feel good" approach which may result in the death and removal of large numbers of caterpillars but is not guaranteed to significantly reduce the population. An exception may be for the Eradicoat® product discussed below.



Young (left) and older (right) larvae

- Placing burlap bands around tree trunks provides a resting place for larvae which can be removed and killed. Wrap a strip of burlap 12–18 inches wide around the tree at chest height, and tie a string around the burlap 6 inches from the top. Let the top 6 inches flop over and form a skirt. Check the bands every day from mid-afternoon to about 6 P.M. Use a knife to flick caterpillars into a cup of soapy water. Don't handle the caterpillars as their hairs can cause a rash! Discard the caterpillars when they are dead.



Preparing a burlap band (left) and larvae under the band skirt (right)

- Barrier bands can be made using duct tape and a sticky substance such as petroleum jelly or Tanglefoot® (<http://www.tanglefoot.com/>), usually available at garden centers. Larvae become stuck on these bands and can be removed or left to die. Wrap about 10 inches of duct tape around the tree with the sticky side toward the tree. Don't leave areas where larvae can crawl under the band. Spread Tanglefoot or petroleum jelly on the outside of the duct tape. On thin-bark trees, place a layer of paper bag or

butcher paper under the duct tape. Do not get either Tanglefoot or petroleum jelly on the tree bark as it can damage the tree.

- There is a commercially available banding kit called Eradicoat® which is generally believed to be more effective than plain burlap or sticky bands. I have not used this product myself, but several state and federal gypsy moth control specialists recommended it highly. This kit includes burlap and an insecticide treatment which persists the entire season. One kit will treat several trees, depending on size. Kits and information are available from <http://www.eradicoat.com/>.



Applying petroleum jelly to duct tape band

Pheromone trapping. Pheromone-baited traps are used to monitor low-level gypsy moth populations. Pheromone traps are not an effective control tactic. While one could capture many hundreds or thousands of adult male moths in a trap, this will have no impact on the population as males will already have mated before being captured.

For more information.

- See the Gypsy Moth in Virginia web site for more detailed information on gypsy moth: <http://fubyss.ento.vt.edu/vagm/>
- The Wisconsin Cooperative Gypsy Moth Program has a very good guideline to banding and egg mass removal which can be found at www.uwex.edu/ces/gypsymoth/homeowners.cfm