

# Howell Township Shade Tree Commission

## GYPHY MOTH CONTROL FOR HOMEOWNERS

Compared to our some of our neighboring towns Howell has done a good job controlling Gypsy Moth and keeping it affordable. Right now Howell is on track to have aerial spraying done this spring by the State. What can you do on an individual basis to protect susceptible trees on your property?

*First of all you have to know what to look for.*

You have to be able to identify the problem insect and what they are eating. This time of the year you will be looking for and trying to get rid of egg masses and not the insect itself so you have to identify the eggs.

*You should control these bugs before they hatch.*

- Determine if your yard is likely to harbor these bugs. Even though you may not have the trees and plants that is on this bugs menu, it would still be a good idea to examine your property for egg masses and then later for hatching caterpillars because Gypsy moths can lay eggs on any vertical surface and in wood piles. The main food for this voracious pest is oaks. In this case the culprit is the caterpillar and not the adult. The adults should of course be controlled later but they are not the feeders and the caterpillars have not hatched yet but you can find the egg masses.
- Look for and remove as many egg masses as you can. For each mass that you can eliminate you are potentially preventing from a few hundred to 1,500 voracious caterpillars from eating your trees and then later breeding to bring thousands more next season.
- Identifying these egg masses are easy. First of all this time of year there really is no other thing like it or even similar to it. The eggs are massed in a fuzzy almost velvet like cluster, a tan color, and about an inch long 1/2inch wide.
- Scrape these masses into a container where you can snuff out these creatures by using a microwave, oil immersion, or soapy water. These eggs will be somewhat hard so they will be easy to scrape off and will not break up and be messy (compared to chicken eggs). Do not discard the eggs to the ground, they will hatch, climb up the tree and feed on the leaves.

When dealing with tall trees you will probably not be able to reach all the masses. Use a ladder at your own risk. Dormant oil can be sprayed out of a pressurized tank sprayer (when applied

in temps over 40 F) to hit the masses that are high up a tree. Most of these small-pressurized sprayers can easily reach 25'. The dormant oil is harmless to shade trees but it can discolor blue colored evergreens such as Blue spruce or Blue Atlas cedar. Soak the masses as best you can with the oil.

*What to do when the egg masses you missed hatch.*

The caterpillars move up and down the tree, so knowing this they can be trapped.

- Wrap a band of black plastic about 3"-4" wide around the tree, not too tight. You can use tape at the ends or do what I do and use Velcro pieces at the end so it's easy to adjust the strip. The bugs like to hang out behind the hot plastic band when they travel up and down the tree. Check the band during the day because this is when they are resting. Release the plastic band and expose the group of caterpillars. Eradicate this pest preferably by a non-chemical means.

You can wrap several bands around the tree to attract more caterpillars. A band or strips of burlap work well too.

- People have used a band of sticky material like petroleum jelly or grease around the tree, it works but once this band is covered by the bugs that are trapped the others just walk over the trapped ones unharmed. If you don't mind the maintaining the grease and cleaning the caterpillars off, this method works. If you choose this method use tape as a base to apply the grease material on to, this avoids damage that grease may cause the tree.

Be advised: avoid handling these bugs bare handed, use gloves. The hairs on these insects can cause irritations.

*Controlling the adult*

Females are very prominent. They are about 1" long, white and do not fly. They await the male, which is smaller, and flies in a zig zag pattern. The male can be trapped or sprayed before he mates with the female. Scrape the female into a container and eliminate them.

*Chemical control by Certified Applicators and Homeowners*

IPM (Integrated Pest Management) is the most ideal means for the best control. IPM includes the

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use of chemical control. If you choose to employ this means I have listed the approved and tested products. Remember you are primarily controlling the caterpillar, which is the feeding stage.

Chemical pesticides are contact poisons in addition to being stomach poisons targeted to insects. The timing of the chemical application is less critical to the successful population reduction of the pest than the timing of the application of the microbials and biologicals. Chemical pesticides can affect non-target organisms and may be hazardous to human health. Homeowners be aware of the risks.

The most commonly used chemical pesticides currently registered by the U.S. Environmental Protection Agency (EPA) for use against the gypsy moth contain carbaryl, diflubenzuron, and acephate. Malathion,,

guidance of Chairperson Cathy McKee has taken oak trees off the tree-planting list 3 years ago with some small exceptions. They have planted elms, ginkgo, ash sycamore and American holly, which are resistant but not immune to feeding.

For the computer users among us go to the Howell website and navigate to the Shade Tree Commission page and locate the Gypsy moth section. There you will see a through description of each stage of this pest from egg to adult in full color. Printout the sample of the egg mass and old exoskeleton (this is the brown shell that is often times still connected near the egg mass). This can help you to identify and locate these masses. After you find the first few you won't need the photo you will soon become your own expert on Gypsy moth egg mass identification.

Active ingredient	Representative trade names	Remarks
<i>Bacillus thuringiensis</i>	Dipel Thuricide	Registered for aerial and ground application. Available under a variety of trade names. Toxic to other moth and butterfly larvae. Can be used safely near water.
<i>Acephate</i>	Orthene	Registered for aerial and ground application. Available under a variety of trade names. Toxic to bees and some gypsy moth parasites. Commonly used from the ground to treat individual trees.
<i>Carbaryl</i>	Sevin	Registered for aerial and ground application. Available under a variety of trade names. Toxic to bees and gypsy moth parasites. At one time, the most widely used chemical in gypsy moth control programs.
<i>Diflubenzuron</i>	Dimilin	A restricted-use pesticide that can be applied only by certified applicators.

methoxychlor, phosmet, trichlorfon, and synthetic pyrethroids have also been registered by EPA for control of gypsy moth, but are used infrequently.

Diflubenzuron represents a new class of pesticides called insect growth regulators. It kills gypsy moth larvae by interfering with the normal molting process. Diflubenzuron has no effect on adult insects. Aquatic crustaceans and other immature insects that go through a series of molting stages are often sensitive to this pesticide so bodies of water need to be located and avoided by a distance set by State or local standards.

How to prevent future infestations

The main thing we all can do to keep this pest and any other in the future is to avoid planting the food they eat, in this case stay away from planting oak trees. This is the food of choice and it also happens to comprise the major tree canopy of our community. The word is diversity. The Howell Shade Tree Commission under the

For those of you that don't have access to a computer there will be a color hand out available for you at Town Hall. Remember the best control is for everyone to pitch in and help to control this pest in the best means that you can. Watering during dry times, controlling insects, disease and will help our trees to live a long healthy life.

### ARTICLE SPONSORED BY: HOWELL SHADE TREE COMMISSION

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