

Gypsy Moth Spraying

What is the gypsy moth?

The gypsy moth (*Lymantria dispar*) is an invasive insect and a harmful forest pest. Originally from Europe, the gypsy moth is not native to Canada, but has been found here for over 100 years. They attack both forests and urban trees.

The life cycle of the gypsy moth has 4 distinct stages: egg, larva or caterpillar, pupa, and adult.



Caterpillar



Adult female (white) and male

Photos provided by the Canadian Forest Service

The adult female gypsy moth lays eggs in masses, in August and September. Eggs can often be found on the covered areas and crevices of trees, as well as on items that are under or near trees such as lawn furniture, cars, trucks, trailers, and campers.

Often these egg masses get accidentally transported by people and can be relocated over long distances before starting a new infestation when the eggs hatch in the spring.

Where is the gypsy moth found?

The European gypsy moth has been found in many parts of southern British Columbia, as well as Ontario, Quebec and many part of Eastern Canada including southern New Brunswick and Nova Scotia.

Why is the gypsy moth a concern?

The gypsy moth caterpillar is a defoliator, which means they eat the leaves of trees and shrubs. This can damage the plant by causing growth loss, stunted growth, stem deformities, or the plant may die.

In B.C., the gypsy moth is a serious threat to major fruit producers as it eats the leaves of fruit trees such as cherry and apple trees, as well as specific berries such as blueberries. A gypsy moth infestation in B.C. can also impact other industries including agriculture, lumber, and plant nurseries.

Human exposure to airborne gypsy moth hairs, silken threads, and skin shed during large-scale infestations have been reported to result in skin rash and possible upper respiratory tract symptoms. However, large-scale infestations are not expected in B.C., so it is unlikely that exposure to the gypsy moth will affect human health.

How is the gypsy moth population being controlled?

In B.C., the goal of gypsy moth management is “eradication” to prevent populations from becoming established. Canadian and U.S. agencies have been working to find and eradicate this invasive pest. As a result, while gypsy moth populations are found in B.C. every year, the insect has not become permanently established in B.C. or in adjacent areas in Western Canada and the Western United States.

Many methods are used to monitor and control the gypsy moth population in B.C. These methods include mass trapping and ground and aerial spraying of the commercial product Foray 48B®, which is used for controlling gypsy moth populations over large or difficult-to-access areas.

What is Foray 48B®?

Foray 48B® is a water-based product containing a bacterium called *Bacillus thuringiensis* variety *kurstaki* (Btk). Btk is found naturally in the soil and is known to cause illness in many insect larvae when ingested, including caterpillars of pest species such as the gypsy moth. Larvae are most susceptible to Btk when they are in the early developmental stages.

Foray 48B® also contains a number of inert (inactive) ingredients which improve the performance of the Btk. Many of these ingredients are approved food grade additives. No petroleum products are used.

Foray 48B® is not toxic or harmful to people, dogs, cats, fish, birds, reptiles, or insects such as honeybees, beetles or spiders. Pest control products containing Btk have been registered for use in Canada for about 40 years. It is now the most widely used pest control product in the world.

What happens during aerial spraying?

Aerial spraying of Foray 48B® for gypsy moths is usually done in the spring between April and June and takes place between 5:00 a.m. and 7:30 a.m. Three separate applications are done every 7 to 10 days. These applications are usually required to treat the gypsy moth larvae which hatch during the treatment period.

Depending on the size of the treatment area, the aircraft used and any weather delays, it may take several mornings to complete 1 application. The treatment area may appear larger than it actually is because the aircraft makes turns in areas outside of the treatment area. Spraying is carefully controlled by GPS navigation equipment and only occurs over designated (select) areas.

You may notice a musty smell and spray droplets on hard surfaces and windows after the treatment. Droplets can be removed with water and a bit of scrubbing, but will eventually disappear on their own.

Treatment information and schedules are provided to residents through a public notice, at least 24 hours before an aerial application project begins through the local media, the gypsy moth hotline, websites, and email distribution lists. All schools and hospitals in the affected area are notified in writing at least 24 hours before a spray program is initiated. Treatment schedules rely on the weather, so for up-to-date information, visit Ministry of Forests, Lands and Natural Resource Operations www2.gov.bc.ca/gov/content/industry/forestry/man

[aging-our-forest-resources/forest-health/invasive-forest-pests/gypsy-moth](http://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/invasive-forest-pests/gypsy-moth).

Are there any health concerns?

There have been 2 extensive public health studies monitoring the impact of spraying on reported illness in Vancouver and Victoria. Results show no increase in illnesses reported by health care providers (including hospital emergency room visits.) There is no evidence of harmful effects in persons and children with asthma or with weakened immune systems.

If you wish to avoid contact with the spray, it is recommended that you close windows the evening before aerial spraying takes place and stay indoors while your property and nearby areas are being sprayed. You should wait until the spray has dissipated (dispersed) from the air (usually within an hour, sooner in windy conditions) before going outdoors. If you have health conditions and are concerned, you should speak to your health care provider.

In addition to staying indoors during the spraying, you should also follow standard good hygiene practices. These include:

- Wash your hands after any outdoor activities.
- Wash all fruits and vegetables gathered from the affected areas before eating or cooking.

For More Information

- Sign up for the gypsy moth email subscription service at Ministry of Forests, Lands and Natural Resource Operations: www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/invasive-forest-pests/gypsy-moth/news
- Call the Ministry of Forests, Lands and Natural Resource Operations' Resource Practices Branch at 1-866-917-5999.
- Island Health Video: "Gypsy Moth Aerial Spraying: Is It Safe?" www.youtube.com/watch?v=FzTSmsxkJtc&feature=youtu.be