



## Gypsy Moth Spraying

### What is the gypsy moth?

The gypsy moth, *Lymantria dispar*, is a harmful forest pest found periodically in both rural and urban areas in B.C.

The life cycle of the gypsy moth is similar to many other moths. It reproduces 1 generation each year. The gypsy moth's life cycle has 4 distinct stages: egg, larva or caterpillar as shown in the photo below, pupa, and adult.

The female moth lays eggs – called egg masses – on any solid object like trees, lawn furniture, cars, trucks, travel trailers, and campers. Often the egg masses are accidentally transported by people and travel hundreds of kilometers to a different location before hatching and starting a new infestation in the spring.



*Young caterpillar*

### Where is the gypsy moth found?

The species originated in Europe, and it was introduced into North America in 1868 when it was brought to Massachusetts, USA, from France. There are also several gypsy moth species in Asia, which are potentially even more harmful than the European species and monitoring helps ensure these do not enter the country.

The gypsy moth has also made its way to Canada, and since 1978 it has been found in many parts of southern British Columbia. It has also been found in Ontario and Quebec, and it has been spreading to parts of southern New Brunswick and Nova Scotia for several years. Monitoring, public awareness, and eradication programs such as aerial spraying have

prevented the permanent establishment of the gypsy moth in western North America.

### Why is the gypsy moth a concern?

The gypsy moth can cause serious impacts to many species of trees and shrubs by feeding on their leaves, flowers, or branches. This defoliation results in reduced growth or increased mortality. Defoliation and tree loss also impact property values in urban areas.

In B.C., the gypsy moth is a serious threat to major fruit producers. 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. could also impact other industries including agriculture, the export of lumber, and nursery products.

Human exposure to airborne gypsy moth hairs, silken threads, and shed skins during large-scale infestations have been reported to result in skin rash and possible upper respiratory tract symptoms. However, large-scale infestations are not anticipated 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?

Many methods are used to monitor and control the gypsy moth population in B.C. These methods include mass trapping or ground and aerial spraying of the commercial product Foray 48B®.

Aerial spraying with Foray 48B® is the method used for controlling gypsy moth populations over large or difficult-to-access areas. It is also approved for use on certified organic farms.

Foray 48B® is a water-based product containing a bacterium called *Bacillus thuringiensis* variety *kurstaki* (Btk). Btk is a bacterium found in soil. It is known to affect only caterpillars, such as the gypsy moth larvae, if it is ingested while they are feeding.

In addition, Foray 48B® contains a number of inert 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 harmful to people, dogs, cats, fish, birds, reptiles, or insects such as honeybees, beetles or spiders. Btk pest control products 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® is usually done in the spring between April and June and takes place between 5 a.m. and 7:30 a.m. There are three separate applications at 7 to 10 day intervals. These applications are usually required to treat the gypsy moth larvae which hatch throughout the treatment period. Depending on the size of the treatment area, the aircraft used and weather delays, it may take several mornings to complete one application. To complete the treatment, aircraft fly and make turns in areas outside of the treatment area. Spraying is carefully controlled by GPS navigation equipment and only occurs over designated areas.

Residents 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 these will eventually disappear on their own with weathering.

Treatment information and schedules are provided to residents through the local media, the gypsy moth hotline, websites, and email distribution lists. As treatment schedules are weather dependent, residents are advised to monitor [www.for.gov.bc.ca/hfp/gypsymoth/](http://www.for.gov.bc.ca/hfp/gypsymoth/) for up-to-date information.

### Are there any health concerns?

The results of two extensive public health monitoring studies in Vancouver and Victoria have not shown any increase in illnesses seen by doctors or in hospital emergency room visits due to spraying. As well, the monitoring has not shown evidence of adverse effects on children with asthma or those with weakened immune systems.

Residents who wish to avoid contact with the spray are recommended to stay indoors while their

property and surrounding areas are being sprayed. They should wait up to 30 minutes following the spray before going outdoors. Individuals who have health conditions and who are concerned should consult their doctor. In addition to staying indoors during the spraying, good hygiene is recommended. This includes:

- Washing hands throughout the day especially after gardening, after going to the bathroom, and before preparing food.
- Washing all fruits and vegetables before eating or cooking.
- Maintaining home swimming pools.
- Cleaning or wiping indoor and outdoor equipment at daycare centers and preschool facilities, as well as covering sandboxes or sandpits.

### For More Information

- Visit the Ministry of Forests, Lands and Natural Resource Operations website at [www.for.gov.bc.ca/hfp/gypsymoth/](http://www.for.gov.bc.ca/hfp/gypsymoth/) for maps and locations of the treatment areas.
- An email subscription service is available on the Ministry of Forests, Lands and Natural Resource Operations website at [www.for.gov.bc.ca/his/Listserv/GypsyMoth.htm](http://www.for.gov.bc.ca/his/Listserv/GypsyMoth.htm)
- Call the Ministry of Forests, Lands and Natural Resource Operations' Forest Practices and Investment Branch at 1-866-917-5999.

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Click on [www.HealthLinkBC.ca](http://www.HealthLinkBC.ca) or call **8-1-1** for non-emergency health information and services in B.C.

For deaf and hearing-impaired assistance, call 7-1-1 in B.C.

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