

European Lymantria moth spraying

What is the Lymantria moth?

The European Lymantria moth (*Lymantria dispar*), formerly referred to as Gypsy moth, is an invasive insect and a harmful forest pest. Originally from Europe, the Lymantria moth is not native to Canada. It has been found here for over 100 years but is not established in western Canada. They attack over 300 different native and ornamental trees and shrubs.

The life cycle of the Lymantria 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 Lymantria moth lays eggs in masses, in August and September. You can often find eggs 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 relocate over long distances. A new infestation starts when the eggs hatch in the spring.

Where is the Lymantria moth found?

You can find the European Lymantria moth in many parts of southern British Columbia. It is established

in Ontario, Quebec and many parts of Eastern Canada including southern New Brunswick and Nova Scotia.

Why is the Lymantria moth a concern?

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

In B.C., the Lymantria moth could be 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 Lymantria moth infestation in B.C. could also impact other industries including agriculture, lumber and plant nurseries.

Human exposure to airborne Lymantria moth hairs, silken threads and shed skins during large-scale infestations have caused allergic reactions. Examples include skin rash and possible upper respiratory tract symptoms.

How is the Lymantria moth population being controlled?

In B.C., the goal of Lymantria moth management is "eradication" to prevent populations from becoming established. Canadian and U.S. agencies are working to find and eradicate this invasive pest. As a result, while Lymantria moth populations are annually detected in B.C., 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 Lymantria moth population in B.C. These methods include ground and aerial spraying of the

commercial product Foray 48B®, which is used for controlling Lymantria 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). You can find Btk naturally in the soil. It is known to cause illness only in moth and butterfly larvae when ingested, including caterpillars of pest species such as the Lymantria moth. Larvae are most susceptible to Btk when they are in the early developmental stages.

Foray 48B® also contains some inert (inactive) ingredients that improve the performance of the Btk. Many of these ingredients are approved food-grade additives and Foray 48B can be used on certified organic farms. 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 Lymantria moths is usually done in the spring between April and June. It 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 Lymantria 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 more than one morning to complete one 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. It only occurs over designated (select) areas.

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

Residents receive treatment information and schedules through a public notice, at least 24 hours before an aerial application project begins. This information is communicated through the local media, the Lymantria moth hotline, websites and email distribution lists. All schools, daycares, care homes and hospitals in the affected area are notified in writing at least 24 hours before a spray program starts. Treatment schedules rely on the weather. For up-to-date information, visit the Ministry of Forests, Lands and Natural Resource Operations and Rural Development (FLNRORD) website:

www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/invasive-forest-pests/lymantria

Are there any health concerns?

Health Canada's Pest Management Regulatory Agency evaluates all formulations according to internationally accepted scientific protocols for the potential to cause skin or eye irritation/sensitization and acute toxic effects. These tests are designed to show if the product has the ability to produce health effects or trigger allergic-type reactions. Results show no increase in illnesses reported by health care providers (including hospital emergency room visits.) There is no evidence of harmful effects in adults 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:

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

For more information

- Sign up for the Lymantria moth email subscription service on the Ministry of Forests, Lands and Natural Resource Operations and Rural Development Lymantria Moth News webpage:
www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/invasive-forest-pests/lymantria/news
- Call the FLNRORD's Resource Practices Branch at 1 866 917-5999
- Island Health Video: "Lymantria Moth Aerial Spraying: Is It Safe?"
www.youtube.com/watch?v=FzTSmsxkltc