

The Douglas-Fir Tussock Moth

Treatment and Control In Your Backyard



Douglas-fir tussock moth mature larva (caterpillar)



Male Douglas-fir tussock moth

What is the Douglas-fir tussock moth?

The Douglas-fir tussock moth is a **native insect** in the low-lying, dry belt Douglas-fir regions of southern British Columbia. **It is not an introduced species.** It feeds primarily on Douglas-fir, and occasionally on ponderosa pine and western larch. Ornamental spruce and pine may also be affected in urban areas. During epidemics, tussock moth caterpillars devastate trees, ranging from loss of new needles on branch tips all the way to complete defoliation and tree mortality. Outbreaks generally last between 2-4 years.

Will the Douglas-fir tussock moth kill my trees?

Yes. When infestations are severe, trees can be killed in one or two years. Most tree mortality will occur in the first two years of an outbreak cycle.

Your trees may be covered in thousands of voraciously feeding small caterpillars, **beginning in May and continuing through early July.** These caterpillars start feeding on new needles and move onto older needles, eventually stripping and killing the tree. Caterpillars are initially very tiny and grow to be upwards of 30 mm in length. They are very recognizable by the prominent tufts at either end of the body.

How can I save my trees?

The current outbreak is the most severe that has been seen in recent years. There are several things that you can do to protect your trees.

- **NPV** (virus) is specific to the Douglas-fir tussock moth and will effectively end the outbreak in the area treated. The virus is registered for government use only (See Douglas-fir Tussock Moth Public Information Sheet #5).
- **Hose caterpillars off small trees**, sweep them up and dispose of them. **Caution:** do not take live caterpillars to local composting sites as they may escape and infest nearby trees. Wear gloves and a dust mask to minimize irritation from the caterpillars.
- ***B.t.k.* (*Bacillus thuringiensis* var. *kurstaki*)** is specific to Lepidoptera (moth and butterfly caterpillars). The insect must ingest it, and mortality quickly ensues. ***B.t.k.* is available to homeowners.** It may have to be applied 2-3 times during the feeding season to be effective.
- There are a few chemical insecticides available for home use. Please follow all instructions carefully, as most chemicals are highly toxic.
- For big trees or larger properties, aerial application may have to be considered. Contact licensed professional applicators for advisement.

When do I spray my trees?

Virus is applied **as soon as all larvae have hatched** and have started to disperse from the egg masses (**late May, early June**).

All insecticides such as *B.t.k.* and chemical insecticides should be applied when the caterpillars are small to minimize damage to the trees. When using these chemicals, you may have to treat again in late June to ensure effective coverage. Follow insecticide label instructions.

When you start to see cocoons, the feeding cycle has ended. Spraying insecticide after this time will be ineffective.

For more information on Douglas-fir tussock moth and its control, please contact:

**Ministry of Forests, Lands & Natural Resource Operations
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<https://www2.qa.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/forest-health/forest-pests/defoliators/douglas-fir-tussock-moth>

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Photographs by Dion Manastyrski

