

Western Spruce Budworm

Scientific Name: *Choristoneura freemani*

Hosts: Douglas-fir, fir, spruce, larch

Damage/symptoms: On the needles, insect excrement and webbing are present. The caterpillars can cause defoliation, deformation of the needles, and chewing damage.

Life cycle: The caterpillars emerge in the spring and begin feeding. They pupate and reach adulthood in July. The females lay eggs, which hatch in about 10 days. In late July, young caterpillars create a cocoon-like structure to spend the rest of the season.



Figure 1. Western spruce budworm caterpillar. W. Ciesla, FHMI Bugwood.



Figure 2. Damage from western spruce budworm. W. Ciesla, FHMI Bugwood.

Management: Beneficial predators can help to control populations of the budworms. Monitoring for the caterpillars allows for properly timed chemical applications. Several contact insecticides are labeled for control of the pest and are most effective during the early stages of the caterpillar, including the bacterium *Bacillus thuringiensis* variety *kurstaki*.



Figure 3. Pupal stage of the western spruce budworm. W. Ciesla, FHMI Bugwood.

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