RASPBERRY CROWN BORER

The raspberry crown borer, *Bembecia marginata*, bores into and damages the lower cane or crown area of raspberries, blackberries, loganberries, and boysenberries, as well as wild thimbleberries and salmonberries. Attacked canes become spindly, cane vigor is reduced, and canes often break off at ground level.

**Life Cycle**

The adult moth looks like a black and yellow wasp. It flies in the daytime and can be seen in berry fields from late July to late September. In some years it will still be seen into October. Each female moth lives about a week and lays some 100 eggs singly on the undersides of the berry leaves. After about 30-60 days the egg hatches into a small caterpillar which crawls down to the base of the cane and forms an overwintering cell. The majority of the eggs hatch in October. In spring the caterpillar bores further into the cane where its feeding causes swelling or galls at or below the soil surface. These swellings, often accompanied by crumbles of insect droppings, are especially noticeable in October. Again the caterpillars overwinter, this second season in a tunnel in the cane. In the spring, feeding continues in the fleshy part of the crown. The caterpillars when fully grown in late

![Borer inside raspberry cane.](image1)

![Raspberry crown borer injury shows in cane at right. Healthy cane on left.](image2)

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June to July are white, about 1–1½ inch long, with a brown head. Pupation occurs just under the bark surface in the lower part of a mature cane and the moths emerge from July to September. The life cycle requires two years, and both very large and very small caterpillars can be found in infested canes in April and May.

**Control**

Dig out and burn infested, “galled” canes and crowns in late fall or early spring. Biological controls have done little to suppress this pest.

Thoroughly spray the crown and lower two feet of cane area with a registered insecticide. Spray sometime between October 1 and March 1. This drenching spray treatment affects only the young caterpillars; to control an infestation, the spray will have to be repeated again a year later to interrupt the two-year life cycle of the borer. Do not apply more than twice per season.

Specific chemicals are not mentioned here because they can change rather rapidly. Consult with a County agent, professional entomologist, or Master Gardener who has access to the *PNW Insect Control Handbook*—which is revised annually.

By Arthur L. Antonelli, Ph.D., Washington State University Cooperative Extension entomologist, WSU Puyallup.

Use pesticides with care. Apply them only to plants, animals, or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

College of Agriculture and Home Economics

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