

Fact sheet

Raspberry crown borers

What are Raspberry crown borers?

Raspberry crown borers (RCB; *Pennisetia marginata* and *P. hylaeiformis*) are one of the most devastating pests of raspberry and blackberry crops. Adults are clearwing moths that lay their eggs on the underside of leaves in late summer. Hatched larvae burrow into and damage the lower cane, crown (base) and/or roots leading to reduced yield or plant death.

Most commercial and wild *Rubus* species are affected including red and black raspberry, blackberry, boysenberry, loganberry, salmonberry and thimbleberry.

What do they look like?

Adults resemble yellow jacket wasps and have transparent wings with dark margins and a black fringe. They measure 25 - 30 mm in length with a wingspan of 15 mm. The body is black with four horizontal yellow stripes on the abdomen as well as yellow stripes on the thorax. Legs are yellow and the feathery antennae curve outward from the head.

Eggs are reddish brown and newly emerged larvae are about 3 mm long. Mature larvae are 25 - 38 mm long with a white body, brown head, six short legs on the thorax and pairs of small hooked appendages on abdominal segments. Pupae develop from mature larvae in late summer and are brown and cigar-shaped.

What can they be confused with?

Adults could be confused with yellow jacket wasps, however unlike the noticeable scales on the body and wings of RCB, yellow jackets have no scales and few hairs. Yellow jacket wasps also have short antennae rather than the long curved antennae of RCB.



RCB adult (*Pennisetia marginata*)

Ken Gray Image, Courtesy of Oregon State University



RCB adult (*Pennisetia hylaeiformis*)

Siga, Wikimedia Commons



RCB egg on underside of leaf

Ken Gray Image, Courtesy of Oregon State University



RCB larva

Ken Gray Image, Courtesy of Oregon State University

What should I look for?

Symptoms of RCB infestation include leaf discoloration (prematurely turn red) and stunting, wilting with a shepherd’s crook appearance, spindly cane growth and premature cane death. In spring, look for brittle and hollow canes that may break easily during wind or when tying. Look also for swelling or galls at or below the soil surface and holes/tunnels in the base of canes with sawdust-like frass at the entrance.

How do they spread?

RCB spreads locally by adult flight which occurs over short distances. Long distance spread occurs through the movement of infested plant stock containing larvae.

Where are they now?

P. marginata is found throughout North America, Hawaii and in southern parts of Canada. *P. hylaeiformis* is widespread in Europe.



RCB larva in stem and resulting swelling of cane base

Ken Gray Image, Courtesy of Oregon State University

How can I protect my farm from Raspberry crown borers?

Source planting material from ‘clean’, accredited suppliers. Check your farm frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common caneberry pests so you can tell if you see something different.



RCB larva in cane

D. Shenton

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**

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