

RASPBERRY CANE & CROWN BORER

COMMON PESTS IN RASPBERRIES

Raspberry Crown Borer

Summary: The Raspberry Crown Borer is a serious pest for raspberry growers. This pest infects the crowns and lower canes, often causing them to break off at ground level. Control by applying 10% Permethrin in early October.

The raspberry crown borer *Bembecia marginata*, a clear-winged moth, 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 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 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 eggs hatch into small caterpillars, which crawl down to the base of the canes and form individual over-wintering cells. The majority of the eggs hatch in October. In the spring

caterpillars bore further into the cane where feeding causes swelling or galls at or below the soil surface. These swellings are often accompanied by crumbles of insect droppings, which are especially noticeable in October. The caterpillars over-winter again, the 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 June to July, are white and about 1 to 1 ½ inches 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. Apply a drenching spray of 10% permethrin at a rate of 2 teaspoons per gallon of water. Thoroughly spray the crown and lower two feet of cane area. Spray sometime between October 1 and March 1, early October is the best. 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.

Raspberry Cane Borer

Summary: Although not as serious as Crown Borer, the Raspberry Cane Borer can cause significant damage. This pest infects the upper canes, causing them to wilt and occasionally die. Control by pruning infected canes and spraying to control adults.

Attack by the raspberry cane borer on blackberry, raspberry and rose results in tip die back and cane death. Damage is readily identified with this insect by two rings of punctures (where eggs are deposited) about ½ inch apart located 4-6 inches below the growing tip. When infected, the tips will wilt. Damage becomes more profound as the larva burrows to the base of the cane causing the entire cane to die before the fruit matures.

Raspberry cane borer adults appear about June and after puncturing the two rings in the canes, lay an egg between the rings. These hatch in July and the larva begins burrowing towards the base of the cane and overwinters about 2 inches below the girdling. The second season it continues to burrow downwards to ground level where it spends the winter. It emerges as an adult the following spring.

Examining plants weekly during June and July, and pruning out the wilted canes by cutting a few inches below the puncture rings or below the larval tunnel provides the best control. Spraying for adults in June can also be helpful. Use 10% permethrin at 2 teaspoons per gallon of water. Do not spray during blossom or within 14 days of harvest.

ALWAYS READ AND FOLLOW LABEL DIRECTIONS FOR SAFE USE OF ANY PESTICIDE!



R. Bessin, Univ. of Kentucky

Revised 04-28-09

Town & Country Gardens, Inc.

5800 S. Yellowstone Hwy. ▪ Idaho Falls, ID 83402 ▪ 522-5247

1300 East Oak ▪ Pocatello, ID 83201 ▪ 232-7985

www.tcgardens.com