

EXOTIC PEST FACT SHEET 14

Cucurbit Beetle (*Diabrotica speciosa*)

What are the main hosts?

The Cucurbit beetle is very polyphagous and has a wide variety of host plants, but is particularly associated with Cucurbitaceae (cucumber, melon, squash, pumpkin, zucchini), beans, corn, and potatoes. It is also a vector of viruses and can transmit bacterial wilt in cucurbits.

What do they look like?

Adult Cucurbit beetles are 5-8 mm long with 4-5 mm dark antennae. They are grass-green coloured, with a reddish brown to black coloured head. They have three large oval spots on each side of their back which are larger towards the head (Fig 1, 2). Male antennae are proportionally longer than female. Larvae start off about 1 mm long and mature to 8-9 mm long, are chalky-white coloured with a yellow-brown head area.

What should I look for?

Cucurbit beetle larvae attack the roots of host plants, while adults feed on leaves, flowers and the fruits. Larvae usually cause stunted growth due to a reduction in plant nutrient uptake. Root feeding can cause plant death when the host is small. In potatoes, the larvae can cause external damage or short holes.

Adults can cause defoliation and general feeding damage to leaves, flowers and fruit. On corn, they feed on the tassels, preventing pollination, and reducing the number of ripening grains. Adults can easily be detected visually as their feeding period is from dawn until dusk. Larval damage is more difficult to detect.

How do they spread?

Adult Cucurbit beetles can spread locally by flight, while contaminated vehicles or machinery can spread eggs, larvae or pupae in the soil. For long-distance spread, adults could be present on the foliage of host plants for planting, and larvae could be present with root systems and tubers. The main potential pathway is soil as females lay their eggs on the soil.

Where are they present?

The Cucurbit Beetle is widespread in Central and South America.



Fig 1. Cucurbit beetle
Image: Alexander Derunkov, USDA, Bugwood.org



Fig 2. Cucurbit Beetle on plant leaf.
Image: Jonas Janner Hamann, Universidade Federal de Santa Maria (UFSM), Bugwood.org

How can I protect my industry?

Check your production sites frequently for the presence of new diseases and unusual symptoms. Make sure you are familiar with common pests and diseases of your industry so you can recognise something different.