

Extension Fact Sheet 37: Bean Pod Borer



Common name: Bean podborer

Scientific name: *Maruca vitrata*; it used to be known as *M testulalis*

Hosts: Many species of beans are hosts, including cowpeas, pigeon peas, and yardlong beans.

Damage

The caterpillars do the damage. They bore into the pods and eat the seeds. There is also damage to the buds, flowers and leaves - they may be eaten and bound together by webs made by the caterpillars; this damage is not large in comparison to that of the pods.

Biology and Life Cycle

Eggs are pale cream, translucent (that is, they allow light through), and laid singly on the stems, young leaves, flowers and pods. They hatch and the caterpillars feed inside the flowers for about a week; then they move to the pods. They are pale cream, with two rows of markings on their backs (photo, left). They grow to 18 mm before they exit the pods and pupate in the soil. The moths (photo, right) have brown front wings, with white patches. The hind wings are mostly white with a brown border.

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Detection and Inspection

Look for damaged flowers, and leaves and pods tied together by webs made by the caterpillars. Look for frass - chewed remains of the pods - around entry holes. Look for caterpillars inside the damaged pods: they are pale with two rows of black markings on their backs. The moth is brown with a white patch on the front wings.

Management

The Bean pod borer is difficult to control, especially on yardlong beans. Pesticides are not recommended. They are:

- likely to kill natural enemies;
- not very effective as the caterpillars are hidden for most of the time inside the pods; and
- expensive, and have to be used often.

There are lures for this insect, but they are used to monitor populations before insecticides are used. Alternatively, look for early signs of webbing of the flowers by the caterpillars.

Chemical control:

If insecticides are necessary, use weekly sprays of a synthetic pyrethroid (for example, lambda cyhalothrin) to kill caterpillars as they move from the eggs to the pods. If the number of plants is small, inspect daily and hand pick the eggs and young caterpillars on the flowers.

Avoid the use of broad-spectrum insecticides to avoid killing natural enemies.