



Fact sheet

Insect Pests of the Home Garden Series

Diamondback Moth

Gerald M. Ghidui, Ph.D., Extension Specialist in Vegetable Entomology



Adult (moth)



Larva and damage



Pupa

Injury:

Diamondback moth larvae are usually minor pests of cabbage and related plants in New Jersey. When the population is low, feeding damage appears as small holes from beneath the leaf but not completely through to the upper surface of the leaf, or as very small, numerous pinholes, generally to older leaves on the outer portion of the plant. In cooler weather, young larvae mine within the leaf. When the larval population is high, plants may become riddled with holes, resulting in poor quality or unmarketable heads. Damage is generally more severe during dry weather conditions.

Description:

The adult diamondback moths are small, grayish-brown moths, about 3/5 inch across, with white markings on the forewings of the male that, when folded, form three conspicuous diamond shaped

spots down the back (hence the name, “diamondback moth”). The female’s wings are uniformly brownish. Larvae are yellowish-green in color, small (up to 1/3 inch long), tapered at both ends, have very fine erect black hairs scattered over their body, and display nervous, wriggling movements when disturbed. If touched, they often wriggle backwards over the leaf edge and hang by a silk-like thread.

Life History:

Diamondback moths, *Plutella xylostella* (Linnaeus), overwinter in cabbage residues or crop debris, emerging in late spring. Females deposit small, round, yellowish-white eggs on the underside of leaves. Young larvae can become fully grown in 20–25 days and attach themselves to the underside of the leaf in a small, delicate-appearing, lace-like cocoon which loosely covers the pupa. Adults emerge in 1–2 weeks. There may be two to three generations per year in New Jersey, depending on weather conditions.



Management of Diamondback Moths:

1. Plants such as collards, sweet alyssum, candytuft, stock, and wallflower attract diamondback moths and can be used as trap crops. Plant these crops around the cabbage to attract the moths, then destroy the larvae as they develop on the trap crop, which reduces the need to spray the cabbage crop.
2. Thoroughly eliminate crop residues to prevent overwintering of adults.
3. Handpicking, although effective, is impractical and generally not recommended.
4. If a pesticide is used, apply the pesticide before the population level becomes unmanageable. Regardless of the pesticide selected, apply while larvae are small for best results. Thorough coverage is necessary, especially to the underside of leaves, for effective control of diamondback moth larvae.
5. Read and follow all insecticide label directions, restrictions, and precautionary statements before using any pesticide. Days wait to harvest after last application varies depending on crop and pesticide—refer to label for appropriate time intervals.

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