



PEST ALERT

Box Tree Moth

Box Tree Moth, *Cydalima perspectalis* (Lepidoptera: Crambidae) is an invasive insect from East Asia that primarily feeds on boxwoods (*Buxus* spp.). It was first spotted in North America in Ontario, Canada in 2018 and then spread to the U.S. through New York in 2021. It has since spread to nearby states like Pennsylvania, Delaware, Virginia and West Virginia. Box tree moth (BTM) is a capable flier and, along with human-assisted travel, it can potentially spread rapidly, impacting nurseries and *Buxus* plantings across the U.S.

Description

Adult BTM have two color forms. A white form with brown borders and white spots and a rare fully brown form that also has white spots on the forewing. The adults lay pale yellow eggs in clusters of 5-20 on boxwood leaves. As eggs develop, a black spot (the head) appears inside them. Young larvae are yellow with black heads and as they grow, they develop white and black stripes with black dots along the bodies. Before they pupate, they encase themselves in a silk cocoon while retaining the larval coloration that eventually darkens.

Lifecycle

BTM has two to five generations per year, depending on climate. Overwintering larvae typically start to feed again around March, and then pupate, between April and May. The adults generally emerge from April to July and live for about two weeks. Once the adults lay eggs, their eggs may take around 4-6 days to hatch. The subsequent generations then cycle until the final season's larvae begin to overwinter again.



Adult



Rare Brown Form



Egg Mass



Young Larvae



Full-grown Larvae



Pupal Case



Silk Cocoon

Feeding Damage

Boxwood species, including its cultivars, have been found to host BTM. Early infestations are much harder to spot as the younger larvae don't typically eat the whole leaf and instead the bottom layer. The larger larvae, however, will fully **skeletonize the leaves**, leaving behind the midrib and outline. As they continuously feed, the larvae create **webbing** and spin the leaves together to protect themselves. Another sign of feeding damage is the **green-black frass** that the larvae produce as they feed. With heavy defoliation, the larvae can move onto bark, girdling the shrub which could possibly kill it.

Boxwoods: Ignacio Baez (L) and Mafalda Weldon (R), USDA, Flickr.com



Healthy



Heavy Defoliation

What You Can Do

Help prevent the spread of BTM by inspecting your boxwoods. Manual removal of any of its life stages is an easy method of preventative control. Small, localized infestations on branches can be pruned out, but for heavily infested shrubs, it is recommended to cut it down to the base or remove the entire boxwood. It is important to isolate any potential caterpillars and eggs within the debris from escaping into the environment by means like double-bagging. For your chemical options, you can contact your local University Extension office to find out what is commercially available. However, first be certain that the insect is BTM. There are currently no available insecticides that exclusively target BTM, so it is important not to needlessly apply insecticides that can have harmful non-target effects and may cause secondary pest outbreaks.

If you suspect BTM is present or it is present, you can report a sighting at the MDA website or scan the QR code. If you have any questions or concerns you can contact us by email at ppwm.mda@maryland.gov by phone at **410 841-5920**.



Report Here !

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