

Box Tree Moth

TREE DOCTOR TIPS

Box Tree Moth (*Cydalima perspectalis*)

DESCRIPTION:

Box tree moth (BTM), known by the scientific name of (*Cydalima perspectalis*), is an invasive moth that feeds on boxwoods (*Buxus* spp.) in the larval stage. Discovered in 2018 in Toronto, Canada, this pest has now been discovered in the United States in: Connecticut, Massachusetts, Michigan, New York, Ohio and South Carolina.

HOSTS:

Primary hosts of box tree moth are boxwood (*Buxus* spp.). However, BTM has also been observed to feed on the following: burning bush (*Euonymus alatus*), Japanese spindletree (*E. japonicus*), purple holly (*Ilex chinensis*), and orange jessamine (*Murraya paniculata*) if heavily infested boxwoods are present in the same area. For these other plants, it doesn't pose an extreme risk.

BIOLOGY AND SYMPTOMS:

Box tree moth's disc-like eggs are pale yellow in color and are laid in groups of 5–20, overlapping in a shingle like pattern. BTM caterpillars are green, yellow, black, and white with sparse hairs. They have yellow stripes and a row of black spots that run along the back. The larvae take about 14 days to mature. Pupae are found amongst webbing and damaged leaves. Young pupae are green with brown stripes; when pupae are ready to turn into moths, the pattern of the wings becomes visible through the pupal skin. Most adult box tree moths are white with a brown border. Adult box tree moths can live for about a month. They are strong fliers and can disperse 4–6 miles. Box tree moths have 1–5 generations per year depending on the latitude and local climate. In Ontario only 2 generations have been recorded so far. Generally, the overwintering caterpillars will begin feeding in early to mid-spring, but will vary based on location. The caterpillars feed mainly on boxwoods and heavy infestations can completely defoliate host

plants. Once the leaves have diminished, larvae will consume the bark, leading to girdling and plant death.

MANAGEMENT:

Products containing *Bacillus thuringiensis* will likely be able to control caterpillars. There can be challenges as adequate coverage can be difficult to achieve with the young caterpillars feeding only on the undersides of leaves and older caterpillars are protected by silken retreats. With small infestations, hand-picking caterpillars and disposing of them in soapy water may be an effective solution. When the caterpillars are small, it is possible to knock them off plants with a strong jet of water. This technique kills many of them as they are unable to climb back up the plant before starving. For more information on box tree moth in your area, consult your local ISA Certified Arborist®.

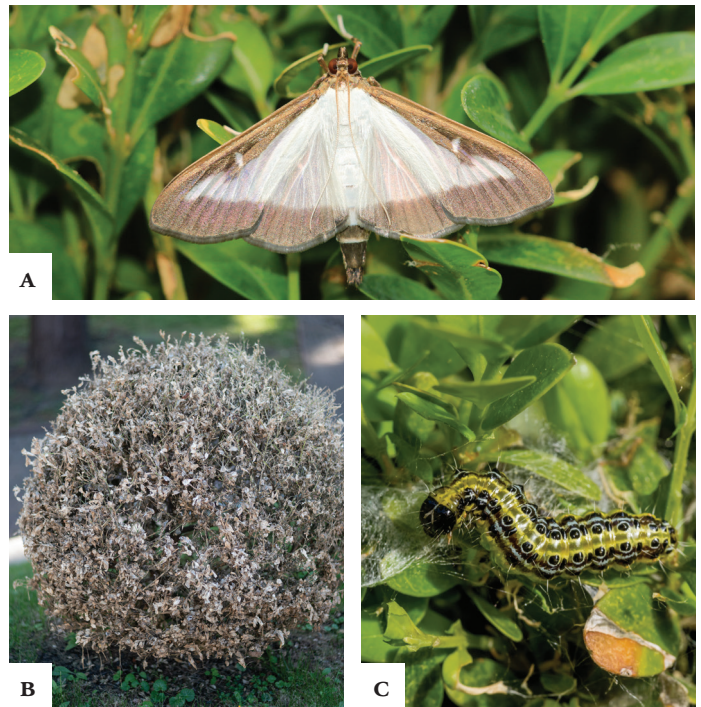


FIGURE A. INVASIVE BOX TREE MOTH, (*Cydalima perspectalis*)
FIGURE B. BOXWOOD DAMAGE, BOX TREE MOTH
FIGURE C. CATERPILLAR STAGE, BTM

The scientists at **The Davey Institute Research and Diagnostic Laboratories** support our arborists and technicians in diagnosing and prescribing based on the latest arboricultural science. For specific treatment and application details, your arborist may consult The Davey Institute's Plant Health Care Treatment Guide.

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