



BRANCHING OUT

An Integrated Pest Management

NEWSLETTER
for Trees and Shrubs

Contents...

Scouting Report

Conifers: Diplodia Tip Blight, Eastern Spruce Gall Adelgid, Elongate Hemlock Scale, Pine Tip Moth, Spruce Spider Mite, Stigmina Needlecast.....1

Broad-leaved: Anthracnose, Beech Leaf Disease, Box Tree Moth, Bush Cricket Damage, Drought, Emerald Ash Borer, Eriophyid Mite, European Hornbeam Leafhopper, Fall Webworm, Hawthorn Rust, Holly High Temperature Damage, Horsechestnut Leaf Blotch, Hosta Virus X, Japanese Beetle, Leafcutter Bees, Magnolia Leafminer, Magnolia Scale, Oak Spider Mite, Oak Wilt?, Pear Trellis Rust, Planthoppers, Pseudocercospora Leaf Spot of Lilac, Quince Rust, Roseslug, Southern Blight on Hosta, Spongy Moth, Spotted Lanternfly, Sugar Maple Leaf Spindle Galls, Tar Spot of Maple, Volutella Blight, Willow Leafminer.....1-3

Feature: Invasive Box Tree Moth Range Expands in U.S.....Insert

Under the Scope: Leaf Spot on Climbing Hydrangea, Odd Leaf Spot on Forsythia, Sassafras Wilt, Southern Blight on Hosta.....3-4

Miscellany.....4

Phenology, Growing Degree Days, Supporters...4

Thank You to Our Scouts and Diagnosticians

Amy Albam, Carol Bradford, Dawn Dailey O'Brien, Don Gabel, Sandra Jensen, Hillary Jufer, Karen Klingenberg, Elizabeth Lamb, Jen Lerner, Jessica O'Callahan, Zaidee Powers, Alice Raimondo, Mina Vescera, Mike Voss, Sandra Vultaggio

Scouting Report Notations:

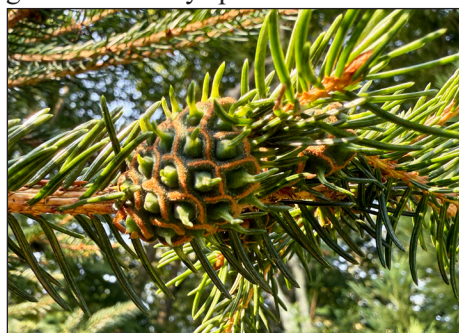
- (#) Numbers in regular type note plate(s) in *Insects that Feed on Trees and Shrubs* (2nd edition) by W.T. Johnson and H.H. Lyon.
- (#) Numbers in italics note plate(s) in *Diseases of Trees and Shrubs* (2nd edition) by W.A. Sinclair, H.H. Lyon, and W.T. Johnson.

Scouting Report

Conifers

Diplodia Tip Blight (60)—on mugo pine in Westchester Co.

Eastern Spruce Gall Adelgid (50)—galls on Norway spruce in Nassau Co.

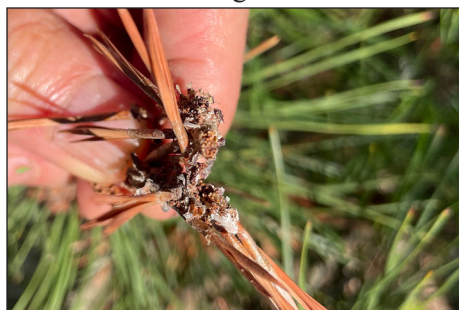


Eastern spruce gall adelgid gall (Riley McKenna)

Elongate Hemlock Scale (45)—in Westchester Co.

Hemlock Rust Mite (54)—injury on hemlocks in Westchester Co.

Pine Tip Moth (17)—on pitch pine in Suffolk Co. Likely pitch pine tip moth, *Rhyacionia rigidana*; Nantucket pine tip moth (*R. frustrana*) is more commonly seen in nurseries and landscapes. Both affect most two- and three-needled pines (mugo, Scots, Austrian, Japanese black, etc.). Several other tip/shoot moths can cause tip dieback in pines. Damage from Diplodia tip blight also looks similar, except tip moth terminals are hollow with frass remaining inside.



Pine tip moth frass (Dan Gilrein)

Volume 32 No. 9 August 15, 2025

Spruce Spider Mite (52, 53)—injury on Norway spruce in Rockland Co. Mites and bronzing on arborvitae in Westchester Co.

Stigmina Needlecast—on spruce in Westchester Co. This disease is easily confused with Rhizosphaera needlecast.

Broad-leaved Trees and Shrubs

Anthracnose (47, 54)—noted on elm (AKA black spot) and on maple in Westchester Co.

Beech Leaf Disease—in Westchester, Nassau, Suffolk and Tompkins Cos.

Box Tree Moth—continued reports of damage to boxwoods from western NY. Check this issue's feature article and NYS IPM Box Tree Moth website with updated NY insecticide options: <https://tinyurl.com/NYSIPM-BoxTreeMoth>.

Bush Cricket Damage

—jumping bush cricket adults, present now, are active at night rasping away patches of the upper surface of leaves that soon turn brown. Damage can accumulate, sometime skeletonizing large areas. On magnolia and other shrubs/trees in Suffolk Co. We've seen similar damage from restless bush crickets too.

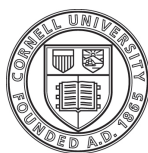


Bush cricket damage to magnolia (Dan Gilrein)

Drought (244-248)—causing early leaf drop of Katsura tree in Monroe Co.



Early leaf drop due to drought (Karen Klingenberg)



Cornell University
Cooperative Extension

Emerald Ash Borer—white ash observation: some trees in Rockland Co. with extensive dieback appear to be “recovering” with new growth and dieback not progressing. See our 2024 (Issue 8) feature article on progress in NY with biological control.

Eriophyid Mite (232)—on linden in Westchester Co.

“European Hornbeam Leafhopper”—relatively new to the region, more reports of injury around Suffolk Co. to European hornbeam esp. hedges. Injury similar to **maple leafhopper (200)**, stippling increases as summer progresses. Pale yellow adults. “Hopperburn” has also been seen on this plant but due to potato leafhopper.



European hornbeam leafhopper stippling (Dan Gilrein)

Fall Webworm (167)—on apple in Suffolk Co. landscape.

Hawthorn Rust (129-133)—leaf and fruit infections seen on hawthorn in Westchester Co., likely due to *Gymnosporangium globosum*.



Hawthorn rust (Hillary Jufer)

Holly High Temperature Damage?—brown sunken areas on leaves of *Ilex cornuta* x *I. latifolia* ‘Emily Bruner’ in Suffolk Co.



Holly leaf damage possibly from heat (Michael Voss)

Horsechestnut Leaf Blotch (19)—large brown lesions with yellow haloes that bear tiny black spore cases of *Guignardia aesculi* in Erie Co.



Horsechestnut leaf blotch (Carol Bradford)

Hosta Virus X—this virus (HVX) created a stir decades ago but has been less common in the trade recently. Striking symptoms appeared in a garden specimen of ‘Sum and Substance’ in Suffolk Co. Remove infected plants with care, as spread occurs easily merely by sap transmission.



Hosta virus X affected leaves (Margery Daughtrey)

Japanese Beetle (110)—skeletonization of Virginia creeper in Onondaga Co. Adults in traps in Westchester Co.

Leafcutter Bees (238D)—circular areas missing from leaves are a sign of leafcutter bee activity. Often seen on roses; was seen on Carolina silverbell in Suffolk Co. Leaf discs are not consumed, only used to line their cavity nests.



Leafcutter bee injury (Dan Gilrein)

Magnolia Leafminer—tiny caterpillars make interesting winding mines in foliage of magnolia and tuliptree, most visible from leaf underside. On sweetbay in Suffolk Co. Adults: beautiful tiny gold & silver moth. See <https://tinyurl.com/ex8shh3v>



Magnolia leafminer in sweet bay, from above and beneath (Dan Gilrein)

Magnolia Scale (169)—dead scales covered by crusty white material killed by scale-killing fungus. Magnolia scales often have a powdery white coating, but in this case the “look” is different, and scales are clearly dead.



Dead scales, killed by fungus, covered by crusty white material (Cliff Goldsmith)

Oak Spider Mite (228A)—heavy bronzing and large numbers of mites on upper surface of black oak leaves in Suffolk Co. Some phylloxera nymphs also present.

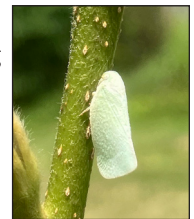


Oak spider mite damage (Dan Gilrein)

Oak Wilt (118)?—suspect sample in Westchester Co. has been sent to the Plant Disease Diagnostic Clinic (PDDC) in Ithaca—see instructions for sample submission here: <https://tinyurl.com/hvwfhacj>. DEC can also help: send photos to foresthealth@dec.ny.gov

Pear Trellis Rust (129-133)—swelling galls on Callery pear in Rockland Co.

Planthoppers—spotted lanternfly is among the few planthopper pests; other species often on woody plants are mainly curiosities, including **citrus flatid planthopper** (*Metcalfa pruinosa*, 203B) and **green cone-headed planthopper** (*Acanalonia conica*), both seen in Suffolk Co, and **northern flatid planthopper** in Tompkins Co. Nymphs produce waxy material on stems where they feed (plate 203A) that occasionally raises some concern when populations are high but they are generally not damaging.



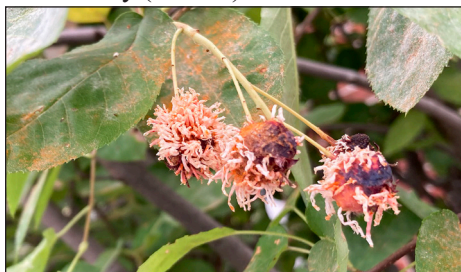
Top: northern flatid planthopper (Elizabeth Lamb); above: green cone-headed planthopper (Dan Gilrein)

Pseudocercospora Leaf Spot of Lilac (15-16)—both common and Chinese lilacs have shown midsummer leaf spotting and defoliation in Suffolk Co.



Left: *Pseudocercospora* damage to common lilac (Margery Daughtrey); right: damage to Chinese lilac (Timothy Johnson)

Quince Rust (131)—*Gymnosporangium clavipes* is the likely identity of rust on serviceberry fruit in Monroe Co. and chokeberry (*Aronia*) fruit in Suffolk Co.



Quince rust (Karen Klingenberg)

Roseslug (58 similar)—larvae in Rockland & Westchester Cos. Bristly roseslug is the usual culprit this time of year. It has multiple generations.

Southern Blight on Hosta—leaves wilting and dying one by one indicate a petiole base rot caused by *Sclerotium rolfsii* or *S. delphinii* in Suffolk Co. Examine stem and soil surface closely for white mycelium and sclerotia that resemble mustard seeds. See *Under the Scope* for closeup of sclerotia.



Southern blight on hosta (Margery Daughtrey)

Spongy Moth (61-62)—dead larvae in upside-down V persisting on trunks from late spring killed by virus (NPV) in Rockland Co. Caterpillars also often killed by *Entomophaga* (fungus) usually remain for a period on trunks or other surfaces head-down and shriveled.

Spotted Lanternfly—4th instars and adults in Rockland, Westchester, Queens and Suffolk Cos.

Sugar Maple Leaf Spindle Galls (232B)—gall shape and host are diagnostic for this eriophyid mite (*Vasates aceriscrumena*) on sugar maple in Suffolk Co. Some leaves also had extensive pale stippling from leafhoppers; **maple leafhopper (200)** is one possible culprit.



Maple leafhopper damage (Michael Voss)

Tar Spot of Maple (32)—in Westchester, Suffolk and Monroe Cos.

Volutella Blight—on boxwood in Westchester Co.

Willow Leafminer—on corkscrew willow (*Salix matsudana*) in Suffolk Co. Culprit is unknown but damage appears to be minor (no pun intended!).

Willow leafminer damage (Dan Gilrein)



Under the Scope: Reports from Diagnostic Labs

Leaf Spot on Climbing Hydrangea—*Alternaria* sp. sporulation on brown necrotic spots was seen on a sample submitted to the CCE Suffolk Co. lab. The spots appeared soon after a midsummer heat wave, which may have contributed to leaf susceptibility.



Alternaria sp. spots (Sandra Vultaggio)

Odd Leaf Spot on Forsythia—unusual round spotting on forsythia leaves in two cases, one from out of state, one from Tompkins Co. Fungal sporulation present: ID is being pursued in the PDDC in Ithaca. Similar-looking bulging, chlorotic leaf spot caused by *Cladosporium forsythiae* is reported from Europe. Have others seen this symptom on forsythia?



Forsythia leaf spots (Sandra Jensen)

Sassafras Wilt—more cases of sassafras trees with sudden catastrophic wilting and black vascular discoloration have been received from St. James and Dix Hills (Suffolk Co.) for diagnosis. Fungal isolates from the initial finding have been submitted to a USDA-APHIS-PPQ lab for federal-level identification of the presumptive pathogen.

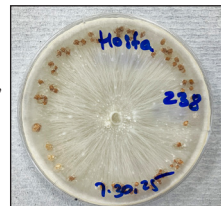


Dark vascular tissue of sassafras wilt (Margery Daughtrey)

Southern Blight on Hosta—hostas are one of the most commonly affected perennials. Petioles will pull off easily; check bases for soft brown rot, white mycelium and mustard-seed-like sclerotia.



Above right: sclerotia on daffodil (Maria Tobiasz); right: sclerotia formed in a culture from hosta (Margery Daughtrey)



Miscellany

Box Tree Moth—new detections in NY (Chatauqua Co.), WV, VA and MD. Report sightings in new areas (other than Niagara, Erie, Orleans, Monroe, Wayne, Cayuga, Oswego Cos.) to NYS Dept. of Ag & Markets: <https://tinyurl.com/mjcs76x>

Box Tree Moth... in corn earworm traps?! Vegetable monitoring programs in western NY and elsewhere finding trapped male BTM in pheromone traps (the lures for both insects share the same major chemical component, differing only in minor components). In areas where BTM is not known to be present, save trapped specimens and report to your local Dept. of Ag. staff for follow-up.



Violette Blackham, University of Delaware

Hemlock Woolly Adelgid (32) reported from Port Douglas area, Essex Co. and near the Conklingville Dam in Saratoga Co. See <https://tinyurl.com/f4amsfns>

NYSDEC's CleanSweepNY pesticide disposal program is coming to New York City and Long Island for this fall See <https://tinyurl.com/mumaxuky>

Spotted Lanternfly - report or not? NYS Dept. of Ag. no longer asking for reports of sightings from NYC, LI and lower Hudson Valley (Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester Cos.). Report sighting from **other** areas to: <https://tinyurl.com/36x8y4pd>

Welcome Dr Garrett Price! New Turf & IPM Specialist in Suffolk Co. will be working on turfgrass-related issues while supporting pest management and fertilizer programs. Dr. Price has a PhD in Entomology (Penn State), MS in Entomology and BS in Biology (Purdue) with graduate research on investigating bacterial communities of annual bluegrass weevil reared on primary and secondary host plants and exploring potential mechanisms of pyrethroid-resistance in annual bluegrass weevil. He most recently worked as a Customer Service Representative for Penn State responding to inquiries about spotted lanternfly.



Phenology by County

Monroe: woolly thyme, bottlebrush buckeye

Onondaga: staghorn sumac, bottlebrush buckeye, American beautyberry, false spirea

Rockland: abelia, chestnut, crape myrtle, sweetspire, steplebush

Suffolk: chaste tree, crape myrtle, rose of Sharon, swamp rose mallow, trumpet vine, butterfly bush, panicle hydrangea

Tompkins: panicle hydrangea, rose of Sharon

Westchester: various hydrangeas, crape myrtle, rose of Sharon, pink jasmine, trumpet vine, butterfly bush

Dan Gilrein, Karen Snover-Clift, Margery Daughtrey & Shari Romar, editors

Growing Degree Days

As of August 12, 2025

Station	GDD ₅₀	Station	GDD ₅₀
Albany.....	2075	Ithaca.....	1676
Binghamton.....	1702	New Brunswick,NJ	2476
Boston, MA.....	2085	Poughkeepsie.	2188
Bridgeport, CT	2244	Riverhead	2295
Buffalo.....	1949	Rochester.....	1926
Central Park	2567	Syracuse	2003
Farmingdale	2235	Watertown	1685
Hartford, CT.....	2175	Westchester	2251
		Worcester, MA	1848

Our Financial Supporters

We thank our supporters for their generous gifts:

- New York State Turfgrass Association
- New York State Arborists-ISA Chapter
- The Orentreich Family Foundation
- William De Vos / Treeworks
- Almstead Tree & Shrub Care Co.
- Bartlett Tree Experts
- Evan Dackow / Jolly Green Tree and Shrub Care
- Long Island Arboricultural Association
- Perennial Charm Nursery
- Stephen Raimondo
- Frank Saladino / Plant Care Solutions, Inc.
- K. Bjene Schaefer/Atlantic Nurseries
- Shreiner Tree Care
- Michael Sperber / Nature's Guardian, Inc.
- Edward Wade / Wade Tree Care, Inc.
- Urban Arborists, BTH LLC
- Alan Lane / Professional Tree Surgeon's Supply
- CWM Horticultural Services, Inc.



Invasive Box Tree Moth Range Expands in U.S.

David Rivera, Lelia Milner, Jason Bielski, and Alejandro Del-Pozo, Department of Entomology, Virginia Tech

Where is the box tree moth now?

Boxwoods are important ornamental foundation plants for homes in the U.S. They rank among the top-selling evergreen plants with sales reported at \$140.9 million in 2019 (Hall et al., 2019). Boxwoods typically grown in the U.S. are the common boxwood (*Buxus sempervirens*), littleleaf boxwood (*Buxus microphylla*), Korean boxwood (*Buxus sinica* var. *insularis*), and hybrids of these (Niemiera, 2023). These boxwoods are at risk due to threats such as boxwood leafminer (*Monarthropalpus flavus*), boxwood mite (*Eurytetranychus buxi*), boxwood psyllid (*Psylla buxi*), boxwood blight (*Calonectria pseudonaviculata*), and now the box tree moth (BTM, *Cydalima perspectalis*, Lepidoptera: Crambidae).

First discovered in North America in Ontario, Canada in 2018, BTM is an invasive pest that causes substantial defoliation to boxwoods. Native to East Asia, this pest has spread across European countries and Asia Minor during the past 19 years. In 2021, BTM was first identified by USDA APHIS PPQ in the U.S. in Niagara Co., New York. Shortly after, a quarantine was set in the County to prevent the movement of boxwood plants within the state and slow the spread of BTM. As of 2024, a federal order has permitted the interstate movement of boxwoods if the facility is operating under a compliance agreement (U.S. Department of Agriculture, 2024). BTM has now spread to other areas of western and central NY State and currently has been found in other states, including Delaware, Massachusetts, Michigan, Ohio, and Pennsylvania (Fig. 1), each with its quarantine zones set in place. More recently, BTM was detected in West Virginia during late May of this year, 20 miles from the border with Virginia.*

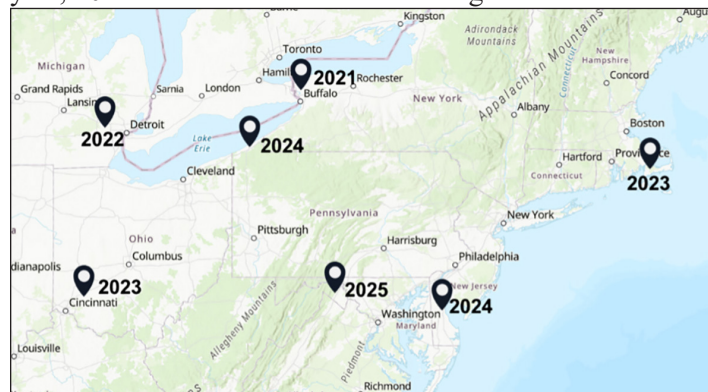


Fig. 1. Progression of the spread of BTM throughout the Eastern U.S., as of June 2025, from its initial US discovery in 2021 in Western New York.

A refresher: biology of the invasive BTM

BTM can be a multivoltine pest producing one to five generations per year, depending on the latitude. BTM exclusively feeds on the leaves of boxwood plants, as well as, in some cases, the bark of branches during its late larval

stages. These larvae can be identified by their black head capsule and green body, which features black dots with white and black stripes running along the sides, as well as hairs (Fig. 2). The larvae develop through a series of six to seven instars (stages) before pupating and emerging as adults. During the fall and in northern latitudes, as daylength decreases to 13.5 hours, the 3rd and 4th instar larvae will spin a hibernaculum or “web shelter” between leaves to overwinter until the following year. The features used to identify an adult BTM include brown borders on the wings and white discal markings that break the anterior brown edges (Fig. 2), with a wingspan of approximately 4 cm. Male BTM find females by following a sex pheromone trail and, once mated, female BTM will lay their eggs on the underside of boxwood leaves. These eggs are transparent to pale yellow and are usually found in a cluster of 5 to 20.

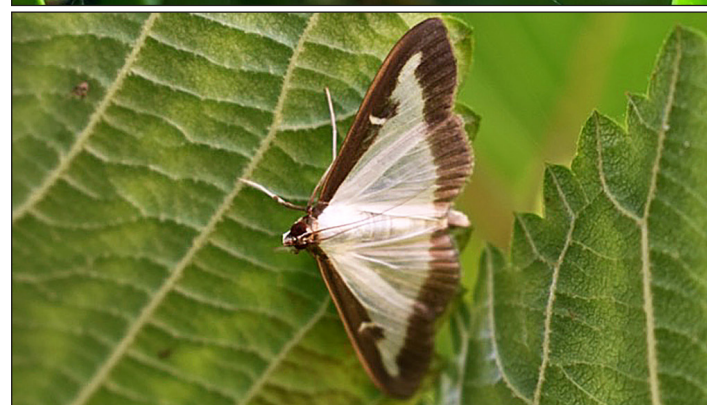


Fig. 2: Top: Late instar larva of BTM on boxwood (David Rivera); above: adult BTM resting on a leaf (B. Hight).

Phenology of BTM in Western NY

Two generations have been observed in Niagara Co., NY from 2022 to 2024, with the peak of first in-field adults emerging in late July and the second in late August to early September. The first appearance of active larvae observed is from the overwintering generation documented as early as late March, while the first generation of in-field larvae emerges in early July. As the year progresses, larvae will begin overwintering in late September to early October.

Use of mating disruption for managing BTM

Mating disruption (MD) is an effective strategy in IPM that helps manage targeted pests by utilizing a synthetic sex pheromone usually produced by females. During 2023 and 2024 USDA APHIS PPQ, in collaboration with Virginia Tech, conducted an area-wide study to evaluate the use of MD against BTM. This was done in three separate residential regions in western Niagara Co. using solid dispensers impregnated with sex pheromone, which hung throughout treatment sites. These sites with pheromone dispensers were paired with counterparts in other sites without these dispensers. MD was supplemented with foliar applications of the bioinsecticide *Bacillus thuringiensis* subspecies *kurstaki* (Btk). Btk selectively controls only larvae of lepidopteran (moth) pests and has proven to be an effective tool against BTM, when the timing of the application targets early instar larvae.

After the MD and Btk treatments were completed, monthly visual inspections were conducted on all boxwoods within both the treatment and control sites. Delta traps baited with a sex pheromone lure were also set up inside experimental sites to assess the ability of male moths to search and find these traps analogous to finding females and presumably mating successfully in the field. Having no males in delta traps (“trap shutdown”) was used as a proxy to measure the success of the MD treatment. MD is expected to confuse males, reducing their ability to find females as well as the pheromone baited traps. Results demonstrated that untreated controls (no MD) had higher counts of BTM adults in delta traps than MD + Btk treated sites. A lower number of larvae and defoliation rates were also recorded at sites treated with MD + Btk compared to controls. This area-wide study successfully demonstrated the effectiveness of using MD and Btk applications to manage BTM under urban environments.

Testing the efficacy of different insecticides against BTM

Chemical control of BTM remains a significant research focus on BTM as it continues to spread across the U.S. In 2024, Virginia Tech, in collaboration with USDA APHIS PPQ, conducted experiments to evaluate the effectiveness of various insecticides on BTM larvae under field conditions. The insecticides tested† were Acelepryn (chlorantraniliprole), Hachi-Hachi (tolfenpyrad), Mainspring (cyantraniliprole), Pradia (cyclaniliprole + flonicamid), Safari (dinotefuran), and XXpire (spinetoram + sulfoxaflor). Each of these insecticides was tested with a foliar application. Acelepryn, Mainspring, and Safari were also tested as a drench application to an individual potted boxwood plant. BTM larvae were placed on each experimental plant and checked at 7, 21, 35, and 49 days after treatments (DAT) for mortality. The results of the experiment revealed that insecticides from IRAC group 28 (chlorantraniliprole, cyantraniliprole) and the combo products (Pradia, XXpire) provided the best control in both foliar and drench applications at 7 DAT. Some of these diamide insecticides also provided acceptable control against BTM larvae up until 49 DAT.

***Editor's note:** At time of publication BTM has also been reported from VA (Clarke and Loudon Cos.), MD (Washington Co.), and Chautauqua Co., NY. The latter is within the NY quarantine zone for BTM. See <https://tinyurl.com/mjcs76x> and <https://tinyurl.com/bddhk6zj>

†Materials tested reflect interest expressed by some nursery growers in NY and elsewhere in products with systemic activity,

including those that have not been approved for use to control BTM in NY. Some earlier studies show other insecticides not tested here are also effective. For a list of insecticides for BTM in New York State see <https://tinyurl.com/NYSIPM-BoxTreeMoth>.

Note Hachi-Hachi and XXpire are not registered for use in NY State. Safari is not registered for use against BTM in NY State. Acelepryn is not allowed for use on Long Island except for golf courses under SLN labeling. No outdoor uses of Mainspring GNL are allowed in Nassau and Suffolk Cos., NY. Pradia is not labeled for use in landscapes or for use in Nassau and Suffolk Cos., NY.

Additional resources on boxwood and BTM

2024 Updates on Box Tree Moth, Virginia Coop. Ext. fact sheet: <https://tinyurl.com/ye5wmf5z>

Box Tree Moth in the United States: <https://tinyurl.com/3uhapadw>

Photographic Guide of Boxwood Pests & Diseases on Long Island: <https://tinyurl.com/57ehverb>

NYS Dept of Agriculture and Markets page on Box Tree Moth: <https://tinyurl.com/mjcs76x>

References

Hall CR, Hong C, Gouker FE, et al. 2021. Analyzing the Structural Shifts in U.S. Boxwood Production Due to Boxwood Blight. *J. Environ. Hort.* 39:91–99. <https://doi.org/10.24266/0738-2898-39.3.91>

Niemiera AX. 2023. Selecting Landscape Plants: Boxwoods. Virginia Cooperative Extension. Available from: <https://www.pubs.ext.vt.edu/426/426-603/426-603.html>

U.S Department of Agriculture Animal and Plant Health Inspection Service. 2024. Domestic Quarantine for Box Tree Moth (*Cydalima perspectalis*) and Establishment of Conditions for the Interstate Movement of Regulated Articles of *Buxus* Species. Available from <https://www.aphis.usda.gov/sites/default/files/da-2024-17.pdf>



BTM damage (Greg Simmons, USDA)