

BOX TREE MOTH TRAPS GO UP THIS MONTH across the state of Tennessee, and will be monitored every five weeks. BTM is not yet in the U.S. or Tennessee. Please be proactive and help us keep BTM out of our state!

All host materials should be Inspected upon arrival, regardless of the USDA-APHIS federal order issued in 2019 of Buxus, Euonymus, and Ilex, from Canada to the U.S.,

For additional information regarding BTM monitoring in Tennessee, please contact Katy Kilbourne, with TDA at katherine.kilbourne@tn.gov or 615-767-0918.



Box tree moth caterpillars are about a 1/2-inch long, dark green on top with dark stripes down the sides of the body.

PHOTO CREDIT: Raymond A. Cloyd

TSU NURSERY NEWS TO USE

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WEED OF THE MONTH: Wild Carrot aka Queen Anne's Lace, *Daucus carota*, is a cool-season biennial weed (flowering in the second year) but can be an annual and flower in a single growing season. Seeds typically germinate in the fall, plants overwinter in the rosette stage, and usually remain in the vegetative stage until the second year when plants will bolt (mid-spring) and produce flowers (early summer). A single plant can produce over 4000 seeds which are dispersed by wind, animals, and farm equipment and can remain viable in the soil for up to 20 years. Although wild carrot can be considered ornamental (with edible roots) and is a great pollinator plant, it is a prominent weed found in field-grown nursery crops, pastures, and roadsides. If allowed to persist, wild carrot can quickly outgrow newly planted nursery crops by competing for water, nutrients, and light. Soil tillage can control small wild carrot plants but is not recommended due to increased soil erosion and enhanced germination of seeds in the soil. Mowing prior to flowering can control weeds in nursery middles and prevent new seed production, while fall planted cereal cover crops (wheat, rye, triticale) can reduce wild carrot establishment. In nursery rows, late summer-applied pre-emergent herbicides help prevent wild carrot seed germination and effective products contain isoxaben and indaziflam. Although wild carrot is similar in appearance to poison hemlock (a poisonous noxious weed), distinguishing features of poison hemlock include hairless stems with purple spots.



PHOTO CREDIT:
Dr. Anthony Witcher

Please contact Dr. Anthony Witcher (awitcher@tnstate.edu) for more information on nursery weed control practices.

**TO RESERVE A PLASTIC ROLLER,
PLEASE CONTACT Josh Reed
at 931-743-2363.**



POTATO LEAFHOPPER, *Empoasca fabae*, is a major pest of maple. Leafhoppers use their piercing-sucking mouthparts to feed on vascular tissues, removing chlorophyll and creating angular stippled spots on foliage. While feeding, the insect injects a salivary toxin that disrupts sap flow and causes decreased internode length, resulting in stacked leaf sets. The salivary toxin also causes leaf cupping and burnt, curling leaf edges, known as “hopperburn.” If buds are also damaged, they produce multiple leaders, a symptom called ‘witches broom’. Should a witches broom occur, the central leader must be retrained via careful pruning. Host plant resistance can play an important role in reducing leafhopper feeding damage. Cultivars ‘Brandywine’, ‘Somerset’, and ‘Sun Valley’ exhibit some resistance to this damage but are not immune. Most damage occurs from early season feeding, therefore, red maple cultivars that break bud earliest in spring (before leafhoppers arrive) sustain the least injury, however, damage can be seen throughout the growing season. Poor aesthetic appearance of damaged trees may reduce the market value of affected trees. Pyrethroids (like bifenthrin or permethrin) applied every two weeks while trees are leafing out will reduce damage. If your maple trees are repeatedly damaged by this pest you might consider a systemic neonicotinoid drench next spring, which provides extended protection and may prevent harming natural enemies, as repeated pyrethroid sprays can.



HOPPERBURN DAMAGE ON RED MAPLE. PHOTO CREDIT: Amy Dismukes

For more information, please contact me at adismuk1@Tnstate.edu or leave me a message at 931-815-5169.

A HUGE ‘THANK YOU’ to the Tennessee Department of Agriculture & Plant Inspectors for intercepting a pathogen before it entered OUR state!!!

Phytophthora ramorum, the disease behind ramorum leaf blight and dieback, and sudden oak death, can cause rapid plant death. Sadly, it is and will continue to be a concern for nurseries worldwide. *P. ramorum* has a broad range of hosts with more than 100 plant species and cultivars susceptible. It thrives in cool, wet climates, but infestations can occur in warmer, drier conditions. *P. ramorum* spreads through infected plants and wind-blown rain, as well as contaminated irrigation water, soil, or gravel substrates. The fungus can also be moved unknowingly in used pots or contaminated potting mix.



DIFFUSE MARGINS ON PIERIS. PHOTO CREDIT: <https://ag.umass.edu/landscape/fact-sheets/phytophthora-ramorum>

Depending on the plant species, *P. ramorum* infections may occur on the trunk, branches, leaves, or twigs. Calluses or ‘cankers’ can develop when infections occur on a tree’s woody tissues. In foliar and twig hosts, symptoms can range from leaf spots to twig dieback. These hosts rarely die from the infection. Symptoms caused by *P. ramorum* are difficult to differentiate from those caused by other pathogens.

If you have concern on incoming host materials coming from Oregon or other known positive states, please contact me or any TDA inspector, etc. A host list can be found at https://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/usdaprlst.pdf. Let’s STOP THE SPREAD (https://www.aphis.usda.gov/publications/plant_health/content/printable_version/SBR_StopTheSpread.pdf).



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