



# TSU NURSERY NEWS TO USE

ISSUE 6  
SEPTEMBER 1, 2019

**HOPPERBURN CONTINUES.** Several local nursery growers are reporting potato leafhopper damage again in blocks of maple. Leafhoppers use their piercing-sucking mouthparts to feed on vascular tissues, removing chlorophyll and reating 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

**DON'T FORGET THE PRE-EMERGENTS.** In order for herbicides to work, they must be used properly. Surflan, Pennant, Pendulum and Barricade are examples of common nursery pre-emergence herbicides labeled for grass weeds, while Princep, Gallery and SureGuard are labeled for broadleaf weeds. Beginning September through December is a good time to suppress germination of winter annuals. It's always best to spray clean soil with no existing weeds, regardless of the time of year as pre-emergents won't kill existing species, only those looking to germinate.



## CONGRATULATIONS

to Phillip and Teresa Herd with HERD FARMS NURSERY in Belvedere, TN. Herd Farms Nursery and Wedding Venue was selected for the 2019 TSU Small Farmer of the Year for ALTERNATIVE ENTERPRISES on the farm.

## UPCOMING EVENTS AND PROGRAMS



September 12th - 13<sup>th</sup>, 2019  
WILSON COUNTY EXPO CENTER  
945 East Baddour Parkway  
Lebanon, TN

<p><b>EDUCATION and POINTS</b> Thursday, 8:30 am - 4:00 pm</p>	<p><b>TRADE SHOW HOURS</b> Thursday, 9:00 am - 5:00 pm Friday, 9:00 am - 2:00 pm</p>
--	--

# BOXWOOD DISEASES & PESTS



**NOVEMBER 13<sup>TH</sup>, 9am - 12pm**  
**The Pavilion at TSU Farm**  
1946 Ed Temple Blvd  
Nashville, TN 37208

9:00 am CLOUDING BOXWOODS  
*Josiah Lockard, Josiah Lockard & Associates*  
9:45 am BOXWOOD DISEASES  
*Dr. Fulva Baysal-Gurel, TSU NRC, Plant Pathologist*  
11:30 am BOXWOOD INSECT PESTS  
*Amy Dismukes, TSU NRC, Nursery Extension Specialist*  
12:00 pm QUESTIONS and adjourn

**NOVEMBER 14<sup>TH</sup>, 9am - 12pm**  
**Wilson County Fairgrounds**  
945 E Baddour Pkwy  
Lebanon, TN 37087

9:00 am BOXWOOD DISEASES  
*Dr. Fulva Baysal-Gurel, TSU NRC, Plant Pathologist*  
10:45 am Management Practices for BOXWOODS  
*Lucas Holman, TSU Wilson Co. Extension*  
11:30 am BOXWOOD INSECT PESTS  
*Amy Dismukes, TSU NRC, Nursery Extension Specialist*  
12:00 pm QUESTIONS and adjourn

**NOVEMBER 15<sup>TH</sup>, 9am - 12pm**  
**Montgomery County Extension Office**  
1030 Cumberland Heights Road, Ste. A  
Clarksville, TN 37040

9:00 am BOXWOOD DISEASES  
*Dr. Fulva Baysal-Gurel, TSU NRC, Plant Pathologist*  
10:45 am Management Practices for BOXWOODS  
*Karla Kean, TSU Montgomery Co. Extension*  
11:30 am BOXWOOD INSECT PESTS  
*Amy Dismukes, TSU NRC, Nursery Extension Specialist*  
12:00 pm QUESTIONS and adjourn

**REGISTRATION REQUIRED!** To register, please complete the link at <https://forms.gle/1f1knjqQoFFW2tr6>

Botryosphaeria is a fungal pathogen that causes diseases of woody plants. It's commonly known as "bot canker." Although as a canker disease, it can resemble a blight when small twigs are involved. Bot canker is typically stress related but becomes especially damaging during periods of extreme water stress or drought. Due to the flooding in February, reports of bot canker are increasing in nurseries.

Symptoms are easily detected in spring and summer. First is a sudden wilting and yellowing of foliage, which gradually browns and dies, or a total lack of leaf out. Cankers will form at the base of dead shoot tips, marking the site of infection. You will be able to differentiate the difference healthy and infected tissue. Once a stem is girdled by a canker, all tissue above the lesion site will dieback. Stem cankers can be hard to see until the leaves drop in the fall. To view the canker, scrape away the outer bark to reveal discolored or dead wood below. Cankers may also form on the trunk. Infections can result in dieback of portions of the tree canopy, reducing the value and overall health of the plant. If severe, the entire plant may die.



(LEFT) rising sun redbud exhibiting a lack of leaf out in the Spring due to cankering on the trunk; (RIGHT) gummosis oozing from canker at graft line on cherry



OTIS L. FLOYD NURSERY  
RESEARCH CENTER



472 Cadillac Lane  
McMinnville, TN 37110  
931-668-3023

<http://www.tnstate.edu/agriculture/nrc/>