Kentucky Nursery LISTSERV Bulletin

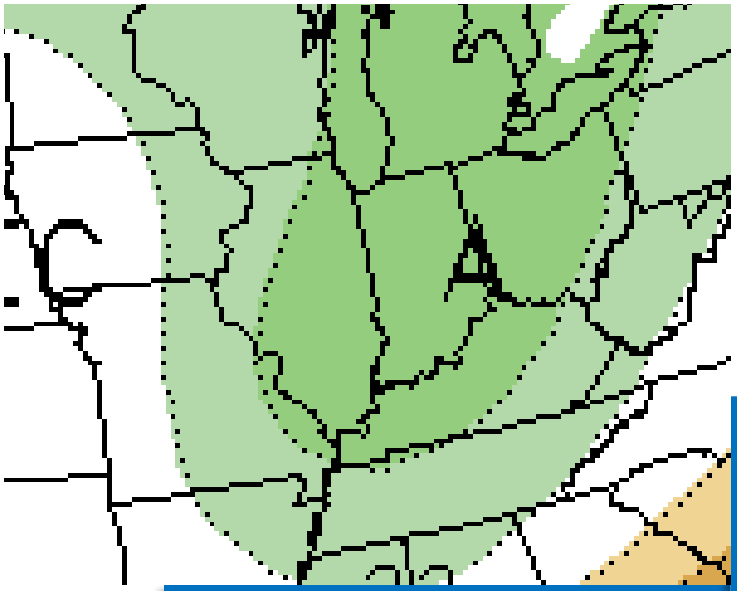
University of Kentucky Nursery Crops Team | End of January 2018

Next Three Months: More Precipitation Likely

January's weather was highly variable, ranging from subzero temperatures at the beginning of the month to highs in the 60s just a few weeks later. As the La Nina condition continues, potential for such variability continues with it though the next few weeks is mostly showing lows in the 20s and highs in the 30s/40s. The long range outlook shows a strong probability for higher than average rates of precipitation.

For more information see

UKAg Weather Center's Long Range Outlooks



Three-Month Outlook, Precipitation Probability
Made 18 January 2018, Valid Feb, Mar, Apr 2018
Source: NOAA Climate Prediction Center

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Joshua Knight, Managing Editor

- **Tennessee Department of Agriculture—Boxwood Blight Quarantine**
- **Avoid Introduction of Boxwood Blight Into Landscapes**

Boxwood Blight Quarantine—Tennessee Department of Ag

Joe Collins, Senior Nursery Inspector

At the request of the production nurseries of Tennessee, the Tennessee Department of Agriculture has implemented a boxwood blight quarantine that will become effective February 4, 2018. **This WILL impact any KY nurseries that ship boxwoods to Tennessee.**

There are several steps that KY nurseries will need to take before they can resume shipments to Tennessee. First, they will need to become enrolled in a boxwood blight cleanliness program which will be administered through the State Entomologist's Office. This program is aimed at prevention of the disease and is based upon 6 key steps: exclusion, water management, sanitation, inspection, training and recordkeeping. More information about the cleanliness program can be found at **http://www.uky.edu/Ag/NurseryInspection/pdf/boxwood blight cleanliness program.pdf**

The next step is that each load of boxwoods going to Tennessee will require a state phytosanitary certificate which is also issued by the State Entomologist's Office. Currently there is no charge for these certificates. Lastly, nurseries that ship boxwoods to Tennessee will be required to notify Tennessee Department of Agriculture three days prior to the estimated shipment of the plants.

This quarantine applies to all boxwoods (container, B&B, liners, plugs etc). KY nurseries that ship boxwoods to Tennessee should contact Joe Collins (joe.collins@uky.edu or 859.218.3341) for more information. It is important to not wait until the last minute to finalize all the details. The boxwood blight cleanliness program may require a site visit by an inspector prior to enrolling in the program and state phytosanitary certificates may require several days to generate.

Avoid Introduction of Boxwood Blight into Landscapes

Kimbery Leonberger, Extension Associate, Plant Pathology
Nicole Ward Gauthier, Extension Professor, Plant Pathology

Excerpted from Article Originally Posted on July 25, 2017

Boxwood blight has been detected in Kentucky again this year. The disease can be devastating to American boxwood cultivars, which are common in the Kentucky landscape. Complete defoliation can occur within a week and plants can die within a single growing season. Use of tolerant cultivars, cultural practices, and fungicides can reduce incidence and spread of boxwood blight.

Boxwood Blight Facts

- Symptoms on leaves can appear as light or dark brown circular leaf spots with darker borders (Figure 1). These symptoms often go unobserved due to rapid defoliation. Defoliation of the lower plant canopy is often the first obvious symptom of boxwood blight (Figure 2).
- Dark brown or black streak-like lesions appear on infected stems (Figure 3).
- Favored by warm, humid weather.
- Caused by the fungus *Cylindrocladium buxicola*.

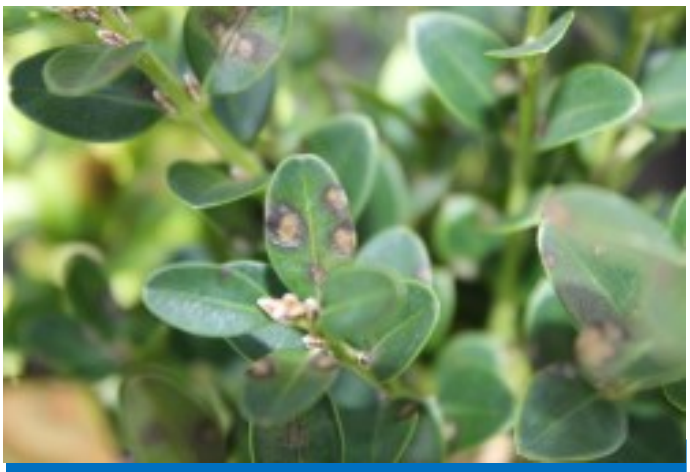

Figure 1. Early symptom of boxwood blight include the development of circular leaf spots with dark borders. (Photo: Nicole Ward Gauthier, UK)

- The pathogen can survive on plant debris in the soil for at least 6 years.
- The disease may be spread by splashing water, wind, tools, clothing, and wet hands. Long distance movement is reliant upon the transport of infected plants, infested soil, or contaminated equipment.

Figure 2. Defoliation of the lower portions of the plant is often the first noticeable symptom of boxwood blight. (Photo: Nicole Ward Gauthier, UK)

Management Options

If boxwood blight is suspected, contact your local Extension agent, who may submit a sample to a UK Plant Disease Diagnostic Lab for confirmation.

If boxwood blight is confirmed, the following are recommended:

- Diseased boxwoods in landscapes should be removed immediately to prevent spread.
- Replant landscapes with boxwoods that have disease tolerance. Some recommended cultivars are listed in Table 1.
- Diseased boxwoods grown for commercial sale should be destroyed and not sold.

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Once boxwood blight has been diagnosed in the landscape or nursery, take these steps to prevent infections to nearby healthy boxwoods:

- Increase plant spacing and prune dense shrubs/trees within the landscape to allow for air movement, reduced humidity, and rapid leaf drying.
- Minimize overhead watering and sources of leaf wetness that can increase fungal spore production.
- Fungicides do not cure boxwood blight. Use of fungicides can help protect nearby healthy plants, but residual protection lasts only 7 to 14 days.
- Homeowners can utilize fungicides containing chlorothalonil to protect plants from infection or suppress disease development. Always follow label directions when utilizing fungicides.
- Commercial growers and retail centers should contact UK Extension Agents and/or Specialists for specific fungicide recommendations.

Table. 1. Susceptibility of 23 commercial boxwood cultivars to boxwood blight

(Compiled from research by Ganci, Benson and Ivors, North Carolina State University, 2012. Refer to latest cultivar trial results at http://plantpathology.ces.ncsu.edu/pp-ornamentals/)

Highly susceptible	*B. sempervirens* 'Suffruticosa' *B. sinica* var. *insularis* 'Justin Brouwers'
Susceptible	*B. microphylla* var. *japonica* 'Morris Dwarf' *B. microphylla* var. *japonica* 'Morris Midget' *B. sempervirens* 'Jensen' *B. sempervirens* 'Marginata' *Buxus* X 'Glencoe' (Chicagoland Green) *B. sempervirens* 'American' *B. sempervirens* 'Elegantissima'
Moderately susceptible	*Buxus* X 'Green Mound' *Buxus* X 'Conroe' (Gordo) *B. microphylla* 'Green Pillow' *B. microphylla* 'Grace Hendrick Phillips' *B. microphylla* 'Jim Stauffer' *Buxus* X 'Green Mountain'
Moderately resistant	*B. microphylla* 'Winter Gem' *B. sempervirens* 'Dee Runk' *B. sempervirens* 'Fastigiata' *Buxus* 'Green Gem' *B. microphylla* 'John Baldwin'
Most resistant (recommended for new plantings)	*B. microphylla* 'Golden Dream' *B. harlandii* *B. sinica* var. *insularis* 'Nana' *B. microphylla* var. *japonica* 'Green Beauty'

Additional Information

- Boxwood Blight (PPFS-OR-W-20)
- Homeowner's Guide to Fungicides (PPFS-GEN-07)
- Landscape Sanitation (PPFS-GEN-04)
- Susceptibility of Commercial Boxwood Varieties to *Cylindrocladium buxicola* (North Carolina State University)
- Best Management Practices for Boxwood Blight (Virginia Cooperative Extension)

The University of Kentucky's **Nursery Crop Extension Research Team** is based out of two locations across the bluegrass to better serve our producers.

The **University of Kentucky Research and Education Center (UKREC)** in **Princeton** serves western Kentucky producers while our facilities and personnel on main campus in **Lexington** serve central and eastern Kentucky producers.

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