



Virginia Cooperative Extension

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9/24/13: A Quick Update on Boxwood Blight in Virginia

Dr. Chuan Hong: Hampton Roads Agricultural and Extension Research Center:

The Virginia Department of Agriculture and Consumer Services (VDACS) recently confirmed the detection of boxwood blight in a Chesterfield county home landscape (refer to further information on this find below). This new find, however, did not change the nature of this disease in Virginia. The best strategy to protect our ornamental horticulture industry, historical gardens, etc. remains to:

1. Prevent accidental introduction into and spread within Virginia by purchasing stock plant material(s) from nurseries who are participating in the Boxwood Blight Cleanliness Program. You can determine if a nursery is enrolled in the Boxwood Blight Cleanliness Program by contacting VDACS (contact: Debra Martin, Cooperative Agricultural Pest Survey Coordinator, VDACS at debra.martin@vdacs.virginia.gov).
2. Early detection and containment: Diagnostic symptoms of this disease include black streaking on stems and branches, dark leaf spots and rapid defoliation. If boxwood blight is suspected, send samples through your [local Virginia Cooperative Extension office](#) to the [Plant Disease Clinic at Virginia Tech](#). We are working closely with VDACS on containment of this disease.

9/23/13, Boxwood Blight Found in Chesterfield Landscape

Norman Dart, Virginia State Plant Pathologist, Virginia Department of Agriculture and Consumer Services (VDACS)

VDACS has confirmed the presence of the boxwood blight pathogen (*Calonectria pseudonaviculata* = *Cylindrocladium pseudonaviculatum*) on boxwood (*Buxus microphylla* 'Green Mound') in a home landscape planting in Chesterfield County. A home owner had sent a sample to Chesterfield County Extension and we confirmed the suspect boxwood blight diagnosis today by culture and PCR. A news article on the original find can be seen at this link: http://articles.washingtonpost.com/2013-09-11/local/41952180_1_fungus-boxwood-blight-three-plants. Boxwood plants were installed at the Chesterfield home within the past several months. The boxwood stock originated in a state where boxwood blight has been confirmed in the past. It is likely that the pathogen was introduced via the recently installed boxwood plants that were produced out-of-state.

As you know, boxwood blight has been introduced to home and public landscapes in several Mid-Atlantic states since the fall of 2011. However, until now boxwood blight had never been detected in a Virginia landscape. The disease was previously known to be introduced on plant material from an adjacent state in an isolated area of Carroll County associated with a commercial nursery operation, however.

We recommend that retailers and wholesalers purchase boxwood material from growers who have entered the Boxwood Blight Cleanliness Program, which was created by the National Plant Board and is coordinated at the state level by VDACS in the Office of Plant Industry Services. This program requires that specific best management practices are followed that help ensure that plants remain boxwood blight-free. It is best to purchase plants from nurseries that are enrolled in this program when possible. Nurseries who grow boxwood

are encouraged to join the Boxwood Blight Cleanliness Program if they have not already. A copy of the Boxwood Blight Cleanliness Program can be seen viewed at:

http://www.nationalplantboard.org/docs/sanc/FINAL_npb_model_bwb_Agree_4-5-2012_1.pdf.

A list of the nurseries that are in the program is available from VDACS (contact: Debra Martin, Cooperative Agricultural Pest Survey Coordinator, VDACS at debra.martin@vdacs.virginia.gov).

An important aspect of any cleanliness or best management program is to monitor and detect any potential introductions as early as possible to increase the effectiveness of mitigating a potential outbreak. Boxwood blight can be recognized by black streaking on the stems and branches as well as dark leaf spots. The leaves defoliate within days and weeks of infection rather than turning brown and staying attached to the branches. There are resources available from Virginia Tech with detailed information and images to help recognize symptoms.

- Virginia Cooperative Extension publication: http://pubs.ext.vt.edu/PPWS/PPWS-4/Boxwood_Blight_pdf.pdf
- previous (11-4-11) Virginia Cooperative Extension pest alert: http://www.ppws.vt.edu/~clinic/alerts/11-04-11_boxwood_blight_alert.pdf

Other resources with useful information and images for recognizing signs and symptoms of boxwood blight:

- Boxwood blight factsheet, Connecticut Agricultural Experiment Station: http://www.ct.gov/caes/lib/caes/documents/publications/fact_sheets/plant_pathology_and_ecology/boxwood_blight- a_new_disease_for_connecticut_and_the_u.s._12-08-11.pdf
- Symptom guide for boxwood blight, North Carolina State University: http://www.cals.ncsu.edu/plantpath/extension/clinic/Submit/box_blight_symptom_guide.pdf

Nurseries should monitor for symptoms of boxwood blight. Home owners who think they may have boxwood blight in their landscape should submit suspect samples through their [local Virginia Cooperative Extension office](#) to the [Plant Disease Clinic at Virginia Tech](#).

All boxwood species and cultivars including the most commonly used cultivars of *Buxus sempervirens* and *Buxus microphylla* are hosts to the boxwood blight pathogen. Based on research from North Carolina State University cultivars of *Buxus sempervirens* (American and English) appear to be the most susceptible to boxwood blight. These cultivars are also the most dominant in historical plantings throughout Virginia. Cultivars of *B. microphylla* show varying degrees of resistance but still may carry, transmit the disease and show symptoms. Research on fungicides out of North Carolina State University looks promising, however: Once the pathogen becomes established on a site it will likely persist in the soil for years making repeated fungicide applications necessary to protect plants from continuing flare-ups of the disease, especially during wet periods. Because this pathogen can persist in soil for long periods avoiding introduction of the pathogen is the most critical step for growers and landscapers. Currently it is not recommended that commercial nurseries use fungicides on boxwood; these can mask symptoms of the disease and further spread the boxwood blight pathogen to new locations.