UNIVERSITY OF ILLINOIS
Plant Clinic
UNIVERSITY OF ILLINOIS EXTENSION
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Plant Clinic Fact Sheet: **Boxwood Blight Detection**

Boxwood blight (*Calonectria pseudonaviculata*, syn. *Cylindrocladium pseudonaviculatum, C. buxicola*) is a serious fungal disease that affects various hosts within the Buxaceae family. It has been identified infecting *Buxus* (boxwood), *Pachysandra* (Japanese spurge), and *Sarcococca* (sweet box). It was first confirmed in Illinois from samples submitted in late 2016 to the University of Illinois Plant Clinic from northeastern counties (Lake and Cook). Both samples were from recent landscape additions (one location was planted in 2016, the other was planted in 2015). Due to the potential impact to landscaped areas and the nursery industry, we are encouraging people to scout for this new disease.

Photo credit: University of Illinois Plant Clinic

DISTRIBUTION

The disease was first described in the United Kingdom in the mid-1990s. It has since been found throughout Europe and in New Zealand. The pathogen was identified for the first time in the United States in 2011. Boxwood blight has now been found in over 20 U.S. states. Most are located in the eastern part of the country though confirmations have been made in a few Midwest states. It is important to note that a confirmation from a state does not mean that the pathogen has become established there. The confirmation may have come from imported stock in a garden center or nursery rather than from a production facility or plants established in the landscape.

SYMPTOMS

There are three characteristic symptoms of boxwood blight: leaf spots, stem cankers, and defoliation. Several other common pests and abiotic problems can cause leaf and stem discoloration, however the complete defoliation caused by boxwood blight is fairly characteristic and not typically associated with other issues. See back for detailed pictures.

SAMPLING SUSPECT PLANTS

Due to the potential for this pathogen to affect Illinois production and landscape plants, sampling procedures are different than for a regular diagnostic sample. If you suspect boxwood blight, please collect representative samples showing all of the symptoms (see back) that are present. Plant material suspected of being infected with boxwood blight should be placed on a dry paper towel in a zip top plastic bag. This bag should be sealed, then placed inside a second zip top plastic bag which should also sealed. We highly recommend shipping samples for next-day delivery. If this is not possible, please ship samples early in the week to avoid weekend layovers in mail sorting facilities.

A sample submission form should be included with the sample. This form is available on our website at: http://web.extension.illinois.edu/plantclinic/downloads/PlantClinicForm09-revised_fillable.pdf. There is a $15 general sample diagnostics fee for each individual sample submitted; if multiple plants are showing similar symptoms, they can be combined into one sample.

SYMPTOMS OF BOXWOOD BLIGHT

Leaf Spots

Spots start off as light or dark brown circular areas on leaves, usually with a yellow halo. As the spots increase in size, the entire leaf will become blighted. If the infection starts near the leaf margin, a wedge-shaped lesion may develop. Lesions are usually visible on both sides of the leaf.

Photos: left: N. Gregory, University of Delaware; middle: S. Tirpak, Rutgers PDL; right: North Carolina State University Plant Disease and Insect Clinic

Stem Cankers

Dark brown or black, diamond-shaped or linear cankers are clearly defined against the green stems.

Photos: left: K. Ivors, California Polytechnic State University; middle: D. Plewa, University of Illinois Plant Clinic; left: M. Williamson, Clemson Plant Problem Clinic

Defoliation

Infection, and thus defoliation, tends to start near the base of the plant and work its way up. This is a characteristic symptom of boxwood blight as other, more common boxwood problems do not cause defoliation.

Photos: left: S. Tirpak, Rutgers PDL; middle: M. A. Hansen, Virginia Polytechnic Institute and State University; right: N. W. Gauthier, UK

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