RESEARCH LABORATORY TECHNICAL REPORT

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Landscape Protection from Boxwood Blight

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Boxwood blight is a fungal disease that causes leaf spots, twig cankers, rapid defoliation, and eventual death of boxwood plants. All species and varieties of boxwood are considered susceptible. English and American boxwood are most severely affected, but there is some tolerance to boxwood blight in other species and hybrids. Since discovery of this disease in the United States in 2011, boxwood blight has spread rapidly across the U.S. and can now be found in most states from coast to coast. Preventative practices outlined below can protect landscapes from the dreaded blight.

- **Knowledge is key.** The causal fungus of boxwood blight can be introduced to landscapes by several means. Knowing about these introduction pathways is key to stopping the spread. Only allow people to work on the boxwoods who are aware of this disease and the importance of sanitation.
- **Check the plants.** If purchasing new boxwood plants for installation into the landscape, it is a good idea to inspect them for diagnostic leaf spots and stem cankers. In addition, quarantining plants for a few months before installation will ensure that they are not infected, and will not infect existing plants.
- **Sanitize.** Avoiding infection is one of the main tactics for disease management. Being proactive with sanitation of tools, clothing, and other materials that may come in contact with the sticky spores of the boxwood blight fungus will reduce the likelihood of infecting your plants. This can be done by sanitizing tools and boots with aerosol Lysol and wearing disposable gloves, Tyvek suits and booties when dealing with infected boxwood plants.
- **Animals may vector disease.** If possible, do not allow pets in or around the garden beds where boxwood plants are grown to reduce the likelihood they will move the spores around the landscape.
- **Prune wisely.** In many instances, boxwood are routinely maintained by shearing. This practice is a common way to spread boxwood blight. An alternative to shearing is hand pruning which reduces contact with the entire plant, thereby reducing the amount of potential infections. With shearing or hand pruning, it is best to apply fungicides directly afterwards to protect the plant from infections. In addition,

prune during dry conditions to reduce spread. Lastly, pruning to open up the boxwood canopy can increase the leaf drying periods after rains. Cultivar trials have highlighted that boxwood with more open form architecture tend to be more tolerant to disease.

- **Consider plant growth regulators.** Since pruning is a routine practice for boxwood, plant growth regulators can be applied to healthy boxwood on properties without blight to reduce the frequency of pruning. This will ultimately reduce the exposure of plants to tools that may be contaminated with spores. In addition, plant growth regulators have also been shown to create a thicker leaf cuticle which is a physical barrier to fungal spores.
- **Irrigate properly.** Avoid overhead irrigation of boxwood plants. Boxwood are generally drought tolerant plants and should only be watered during establishment and periods of drought with drip or surface irrigation. Excessive irrigation can lead to other disease problems like Phytophthora root rot.
- **Mulch.** Beds with boxwood should be mulched with a 2-3 inch layer of arborist wood chips to reduce the amount of splashing from the soil to the plants. If leaf debris of infected boxwood is on the property or brought to the property, mulching can reduce the potential of infections originating from spores on the soil surface from splash.
- **Select a fungicide program.** If boxwood blight is present in the area, preventive products should be considered especially if multiple people will be involved with boxwood care. Monthly applications from May through October in a year with average rainfall and temperatures may suffice to avoid the potential for infections. These applications are particularly important for the extremely susceptible cultivars such as American and English boxwood, and additional applications may be required. Contact your local Bartlett Tree Experts Arborist Representative to discuss the boxwood blight management program for your landscape.

Figure 1: Leaf spots caused by the boxwood blight fungus

Figure 2: Darkened twig lesions caused by the boxwood blight fungus

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