

Gardening Basics

Boxwood Blight

Boxwood blight is a disease caused by two related fungi: *Calonectria pseudonaviculata* and *Calonectria henricotiae*. The disease was first identified in the United Kingdom in the mid-1990s and now is present in the eastern third of the US and the three Pacific coast states, but as of February 2024, it is not in Texas. Should it be identified here in the future, the State's Department of Agriculture will institute regulatory measures.

Symptoms and Identification

Boxwood blight affects the entire plant above ground - leaves, twigs, branches - but doesn't appear to affect the root system. Dark-to-light brown spots with dark borders appear on the leaves first. Masses of white fungal spores may also be present on the underside of the leaves. The plant's stems and twigs may have dark brown-to-black streaks or cankers, which is a key symptom differentiating boxwood blight from other diseases.

Boxwood shrubs are also susceptible to Boxwood crown and root rot (*Phytophthora spp*) and Volutella blight (*Volutella buxi*). Plants infected with Volutella blight will have salmon-colored spores on the underside of the leaves. The foliage of boxwoods infected with crown and root rot will wilt at first, turn light green, then brown and eventually dry out and drop off.

Boxwood blight causes defoliation and twig dieback within just a few days of the initial appearance of leaf spots. The plant will try to regrow, but repeated infection and defoliation will lead to plant death.

Spread

The spores of boxwood blight are spread short distances by wind or windblown rain. The disease can spread in a nursery setting when plants are placed close together and irrigated from overhead. Infected plant material movement, contaminated equipment, or clothing can also cause spread over long distances.

Control and Management

Remove and discard infected plants quickly. Do not compost the infected plants. Clean up and discard any remaining plant debris and fallen leaves in the trash. Disinfect all garden tools used for pruning or removal.

Avoid pruning or shearing boxwood when they're wet to limit the fungus spread.

To prevent the disease, apply a fungicide every 7 - 14 days, rotating products containing one of these active ingredients to avoid resistance: chlorothalonil, fludioxonil, azoxystrobin, pyraclostrobin, boscalid, trifloxystrobin, tebuconazole, or thiophanate methyl. Carefully read and follow the product label application and safety instructions.

An accurate diagnosis is especially important. Consider sending suspect samples to Texas A&M AgriLife Extension Service's Texas Plant Disease Diagnostic Lab: <https://plantclinic.tamu.edu/>



Boxwood blight (*Calonectria pseudonaviculata*), Adria Bordas, Virginia Polytechnic Institute and State University, Bugwood.org

Resistant Varieties

The boxwood blight fungus can persist in the soil for up to five years! Replacing plants in the same location will likely result in infection. Look for these resistant varieties that will require fewer fungicide treatments and disease control. Purchase plants from a reputable nursery that practices good disease management.

- *B. microphylla* 'Golden Dream', 'Green Beauty,' and 'National'
- *B. harlandii*
- *B. sinica* var. *insularis* 'Nana,' var. *aemulans*

Resources

"Boxwood Blight," Purdue Extension Plant and Pest Diagnostic Laboratory (February 2020, accessed 20 April 2024), <https://www.extension.purdue.edu/extmedia/bp/bp-203-w.pdf>

"Boxwood Wilt (#858681)", Knowledgebase, National Institute of Food and Agriculture, USDA, (24 February 2024, accessed 20 April 2024), <https://ask2.extension.org/kb/faq.php?id=858691>

Gehesquière, B. et al, "Characterization and taxonomic reassessment of the box blight pathogen *Calonectria pseudonaviculata*, introducing *Calonectria henricotiae* sp. nov.", British Society for Plant Pathology (BSPP), (4 May 2015, accessed 20 April 2024), <https://doi.org/10.1111/ppa.12401>

Texas Plant Disease Diagnostic Lab, Texas A&M AgriLife Extension Service, (accessed 20 April 2024), <https://plantclinic.tamu.edu/>

i

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The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts cooperating.