

Outline

BBIG – Reclaiming Boxwood from the Blight



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Boxwood is an iconic landscape plant and major nursery crop worldwide, and a keystone forest species in several (sub)tropical regions. This plant has been threatened by two emerging invasive pathogens – *Calonectria pseudonaviculata* and *C. henricotiae* – that cause boxwood blight. The diagnostic blight symptoms include leaf spots, stem lesions, foliage blight, defoliation, and plant death. This disease was first observed in the United Kingdom and New Zealand in the mid-1990s and quickly spread to other countries in Europe, Asia and North America, wiping out numerous boxwood crops and historical plantings as well as forests.

To reclaim boxwood, an international research and extension consortium – [Boxwood Blight Insight Group](#) (BBIG) – was established in 2020. The BBIG Team has since taken a global approach to boxwood blight, effectively advancing the disease science, innovating mitigation technology, and reaching out to stakeholder communities. In addition to producing many high-impact research publications and the [BBIG Knowledge Center](#), this Team has conducted the [International Boxwood Seminars](#) and the [BBIG Boxwood Seminars](#). The BBIG Team was recognized with the [2022 USDA National Institute of Food and Agriculture \(NIFA\) Partnership – Program Improvement through Global Engagement Award](#).

This focus issue highlights some of the BBIG Team's and its global partners' latest science advancements and innovations that are much needed by first responders – diagnosticians, regulatory personnel, plant health educators, consultants, growers, retailers, landscaping professionals, historic garden managers and homeowners – who battle against boxwood

blight every day. Also highlighted in this issue are a systems approach to boxwood health and production and economic analyses of research and extension activities and products. Additionally, this issue provides a retrospective on how the battle against boxwood blight evolved over time – from fighting alone to the global communities fighting together, with a close stakeholder partnership – and why this evolution was important.

Articles included in this issue are presented in four sections below:

- 1) **Boxwood Blight Systems Biology and Epidemiology** covers the latest research into pathogen biology, host and environment microbiomes, field epidemiology, disease modeling and forecasting.
- 2) **Blight Scouting and Detection** centers on scouting, new detection and diagnostic technologies.
- 3) **Blight Management and Control Technology** focuses on immediate and long-term control technologies, including novel chemical protection, biological control and boxwood genetics—breeding for resistance.
- 4) **Systems Approaches, Impacts and Economics** covers boxwood economics, as well as measurable impacts of research advancements, tech innovations, extension/outreach programs, Best Management Practices, etc.

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