

Boxwood Blight Best Management Practices

Boxwood Blight is caused by the fungus *Cylindrocladium pseudonaviculatum* (syn. *C. buxicola*). *Buxus* spp., *Sarcococca* spp. and *Pachysandra terminalis* are known hosts of Boxwood Blight. Following the best management practices laid out by the Boxwood Blight Cleanliness Program can substantially mitigate the risk of spreading boxwood blight throughout a nursery, garden center or greenhouse.

A. EXCLUSION OF THE PATHOGEN

1. Utilize suppliers or nurseries that have been officially inspected by the state's department of agriculture and found to be apparently free from boxwood blight or hold a "Boxwood Blight Cleanliness Program compliance agreement".
2. Inspect incoming host plants and/or cuttings at the time of delivery. If the host material is symptomatic, contact the Tennessee Department of Agriculture immediately.
3. Isolate newly received host plants or rooted cuttings from existing host plants in the nursery for at least 30 days by a minimum of 3 meters (approximately 10 feet), using a physical barrier or another isolation method.
 - a) Keep newly received host plants obtained from different vendors separated.
 - b) Maintain a clean isolation area, removing debris on a weekly basis.
 - c) Do not apply fungicides active against *Cylindrocladium* sp. during the isolation/holding period.
 - d) Prevent runoff from the isolation area into a water source or other host production areas.
4. Returns of host plants shall only be accepted into the isolation area and treated as newly received host plants (see 3 above).

****Do not allow returns that have been commingled with host plants from another source into the nursery.****
5. Unload incoming vehicles delivering host plant material into the isolation area, or if a common loading dock must be used, clean up and proper disposal shall occur after unloading. Vehicles for pick-up should be free from host plants and debris before entering the host plant production area.

B. WATER MANAGEMENT

1. Avoid overhead watering and conduct watering so as to allow leaves of host plants to dry before nightfall.
2. Monitor for host plant debris in water run-off. Minimize water run-off such that it does not run from one host plant production area into another.
3. Minimize standing water in host plant blocks.

C. SANITATION

1. Inspect host plant production areas regularly for the accumulation of host plant debris. Minimize host plant debris by regular cleaning of the substrate and pot surfaces. Do not use host plant debris in compost.
2. Sanitize tools and equipment between blocks/lots of host plant material with an effective disinfectant such as quaternary ammonium solution (prepared and maintained at labeled rates) or 5% sodium hypochlorite solution (commercial bleach with a minimum of 5.25% NaOCl).
3. After every crop production cycle, remove all crop debris and disinfect propagation. Mist beds, cutting benches, machines, and tools, using an appropriately labeled disinfectant such as quaternary ammonium solution (prepared and maintained at labeled rates) or 5% sodium hypochlorite solution (commercial bleach with a minimum of 5.25% NaOCl).
4. Use new or sanitized pots/flats that have been thoroughly cleaned of soil and plant debris for host plant production. Do not reuse potting mix previously used in host plant production unless the used potting media has been sterilized.

D. INSPECTION

1. Inspect all host plants in the isolation area on a weekly basis and other host plants monthly throughout the growing season by trained personnel.
 - a) If boxwood blight symptoms are suspected, immediately contact the Tennessee Department of Agriculture to have the disease identified.
 - b) Do not sell symptomatic host material

E. TRAINING

1. Educate and train appropriate personnel on the following:
 - a) Recognizing basic signs and symptoms of Boxwood Blight.
 - b) Proper sanitation practices.
2. Approved training materials may be obtained from HRIResearch.org, National Plant Board website or from the Tennessee Department of Agriculture.

F. RECORD KEEPING/TRACEABILITY

1. Maintain records of incoming plants including the following:
 - a) Incoming plants including quantity and sources
 - b) Location of isolation area(s) for incoming host plants
 - c) Shipping records (dates, quantity, plants shipped, destinations)
 - d) Fungicide applications
 - e) Inspection Reports
 - f) Personnel training (dates, attendees, subject matter, trainer)



Black lesion on stem.



Spores on underside of boxwood leaf.



Spotted foliage on boxwood.

