

Boxwood Blight and Disease-Free Boxwood Production and Distribution Compliance Training



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Plant Protection and Weed Management

Boxwood Blight Compliance Agreement for Production Nurseries

- **Agreement number:**
- **Business Name and Address:** **Location(s):**
- **Email:**
- **Regulated Articles: *Buxus spp.*, *Sarcococca spp.* and *Pachysandra spp.***
- **Applicable State Quarantine(s) or regulations and authority (if applicable):**
- **Introduction:**
- **<name of nursery> has been inspected by the Maryland Department of Agriculture (MDA) on <insert date> and found to be apparently free from Boxwood Blight. The Maryland Department of Agriculture hereby approves <name of nursery> as a participant in the Boxwood Blight Cleanliness Program.**

Boxwood Blight is caused by the fungus *Cylindrocladium pseudonaviculatum* (syn. *C. buxicola*, *Calonectria pseudonaviculata*,). *Buxus* spp., *Sarcococca* spp. and *Pachysandra* spp. are known hosts of Boxwood Blight. The participant agrees to grow species and cultivars of host plants according to **best management practices** developed to prevent the introduction and minimize the risk of spreading Boxwood Blight. This agreement does not preclude the inspection, sampling, and testing of plants by the destination state department of agriculture or similar authority, and rejection as a result of any positive finds.

**See Copy of MDA Boxwood
Best Management Practices (Handout)**

To meet the requirements of the Boxwood Blight Cleanliness Program, the participant agrees to the following:

EXCLUSION OF THE PATHOGEN

- Utilize suppliers or nurseries that have been officially inspected and found to be apparently free from Boxwood Blight, or that participate in a Boxwood Blight Cleanliness Program compliance agreement.
- Inspect incoming host plants and/or cuttings at the time of delivery. If the host material is symptomatic, contact MDA immediately.
- Newly received host plants or rooted cuttings shall be isolated by a minimum of 3 meters (approximately 10 feet), by a physical barrier or by another isolation method approved by MDA, from existing host plants in the nursery for at least 30 days.

- Keep newly received host plants from different suppliers and sources separated.
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- The isolation area will have a surface, such as concrete or landscape fabric, that can be cleaned of plant debris. All plant debris shall be regularly removed and destroyed—burned, buried, or bagged and secured in an approved sanitary landfill.
 - No fungicides shall be applied during the isolation/holding period.
 - The isolation area for incoming host plants must be positioned to prevent water run-off into stored potting media, and other host production areas.



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- Returns of host plants shall only be accepted into the isolation area and will be treated as newly received host plants (see 3 above). MDA shall be notified in the event of any returns.
 - Nursery stock delivery vehicles shall unload host plant material into the isolation area, or if a common loading dock must be used, cleanup and proper disposal shall occur immediately after unloading (see section C-1, below). Vehicles for plant transport must be free from host plants and debris before entering the host plant production area.

WATER MANAGEMENT

- If practical, overhead watering should be avoided and host plants should be watered as to allow leaves to dry before nightfall. Proper plant spacing will facilitate quicker drying.
- 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.
- Eliminate standing water in host plant blocks.



SANITATION

- For container production facilities, host plant production areas shall be inspected regularly for the accumulation of host plant debris. Minimize host plant debris accumulation by regular cleaning of the substrate and pot surfaces. Host plants or host plant debris shall not be used in compost. (see section A, B above).
- Sanitize tools and equipment when moving 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).



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- 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).
 - Use new or sanitized pots/flats for host plant production. Do not reuse potting mix in host plant production.



INSPECTION

- Trained personnel should inspect all host plants in the isolation area on a weekly basis, and other host plants monthly, throughout the growing season for symptoms of disease. (see section E).
- If Boxwood Blight symptoms are suspected, they shall be reported immediately to MDA, in order to have the disease identified.
- No symptomatic host plants shall be sold until they have been examined, tested and cleared by MDA.
- The nursery shall allow MDA to conduct inspections and, if necessary, collect samples to test for the presence of Boxwood Blight.



TRAINING

The participant shall educate and train appropriate personnel on the following:

- Recognizing basic signs and symptoms of Boxwood Blight.





TRAINING –continued

- Proper sanitation practices to meet the intent of this compliance agreement, including training on worker safety.
- The stipulations of the Boxwood Blight Cleanliness Program compliance agreement.

- MDA Approved training materials may be obtained from the knowledge center endorsed by the American Nursery and Landscape Association (ANLA) and National Plant Board (NPB) Boxwood Blight website:
(<http://americanhort.theknowledgecenter.com/Library/Americanhort/docs/government%20relations/Boxwood%20blight/BBWG-BMPs-Version1.pdf>)

or from the Maryland Department of Agriculture website:

Boxwood Blight Best Management Practices

(http://mda.maryland.gov/plants-pests/Documents/BoxwoodBlight5_29_14rev1.pdf)

and

Boxwood Blight Alert (<http://mda.maryland.gov/plants-pests/Documents/BoxwoodBlight.pdf>)

RECORD KEEPING/TRACEABILITY

Host plant records must be maintained for a minimum of 12 months and include the following:

- Incoming and returned plants, including quantity and sources.
- Location of isolation area(s) for incoming host plants.
- Shipping records (dates, quantities, plants shipped, destinations).
- All pesticide and fertilizer applications.
- Records of inspections conducted by trained personnel.
- Personnel training (dates, attendees, and trainer).
- The participant shall allow MDA access to all necessary records and protocols to ensure compliance with the above-mentioned requirements. Interviews of employees may also be conducted to ensure compliance with training requirements.

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- This agreement becomes effective when signed and will remain in effect for one year unless rescinded for noncompliance, but may be revised as necessary. Noncompliance will result in suspension of this agreement until corrective actions are taken, during which time, any host plant shipments to Pennsylvania will require, at minimum, a phytosanitary certificate. In the event of the detection of Boxwood Blight at this location, this agreement shall be voided or suspended until remedial action is taken, to meet the requirements of MDA.

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- The Maryland Department of Agriculture shall provide an official written statement that attests to the following: “This nursery has been inspected and found to be apparently free of Boxwood Blight, *Cylindrocladium pseudonaviculatum* (syn. *C. buxicola*, *Calonectria pseudonaviculata*). The responsible party has agreed to the stipulations of a compliance agreement designed to prevent the introduction and minimize the risk of spreading Boxwood Blight.”









Thank You!



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Thank You!



Plant Protection and Weed Management Section

410 841-5920

http://mda.maryland.gov/plants-pests/Pages/nursery_inspection_plant_quarantine.aspx



Mandated Procedure Checklist for MD Boxwood Blight Compliance Agreement

- Know your sources and suppliers.
- Isolate all incoming host plants, on a cleanable surface, for 30 days and inspect weekly.
- Deliver new host plants directly to isolation areas or clean any common loading areas after deliveries.
- No fungicides or pruning in isolation areas during the 30 day waiting period.
- Separate all host plants by source.
- Avoid overhead and late-day watering.
- Prevent water runoff from one production area to another.
- All tools, equipment and surfaces must be disinfected between crop cycles.
- Use new potting medium and sterilized or new pots.
- Report suspect plants to MDA.
- Maintain complete host plant records for 12 months.
- Train appropriate staff on symptoms, sanitation, and compliance agreement.

These additional, nursery-suggested, procedures are **strongly** recommended, in order to minimize risk of contamination for your operation:

- All visiting vehicles will enter the nursery through controlled-access points.
- Vehicles will be inspected for plant debris and soil. Dirty vehicles will be denied access or sent for decontamination at the nursery's wash-down facility.
- Customers will only tour fields with a nursery-supplied guide, in a nursery-owned vehicle.
- Customers will not exit the tour vehicle to access any boxwood or other host plant block.

STOP / ALTO

BOXWOOD BLIGHT COMPLIANCE AGREEMENT IN EFFECT

- Trucks for pick-up or delivery must call for inspection.
- Visitors should park in lot and call for a host.

ACUERDO DE CUMPLIMIENTO DE LA CINZA DE BOXWOOD EN EFECTO

- Los camiones que recogan o entregan deben de llama para inspeccion.
- Parqueo de visitantes en el lot, llamar para informacion.



Participant in Maryland Department of Agriculture
Boxwood Blight Compliance Agreement