Best Management Practices for Boxwood Blight for Greenery Producers

Best management practices for boxwood blight (also called “box blight”) for greenery producers are practices recommended to avoid the introduction and spread of boxwood blight, caused by the fungus *Calonectria pseudonaviculata* (syn. *Cylindrocladium pseudonaviculatum*). The recommendations in this document are designed to avoid spread of boxwood blight within a planting or to new locations when pruned tips are collected, sold and/or used for holiday greenery. These recommendations are relevant to anyone involved in the greenery (“tipping”) industry, including small and large-scale greenery producers, home growers who sell boxwood tips, and people who tip-prune boxwood on other people’s property. Care must be taken at all levels of greenery production to prevent the spread of the boxwood blight pathogen and avoid economic losses associated with this disease.

### Boxwood blight symptoms

To avoid spread of boxwood blight, it is important to learn to recognize the symptoms of the disease. Typical symptoms include circular, tan leaf spots with darker borders (fig. 1) and linear, black streaks on stems (figs. 2 and 4). Whole leaves eventually turn brown and drop from the plant (fig. 3). Infected plants may show sudden and severe defoliation. Defoliated stems may produce new shoots from axillary or terminal buds later in the season (fig. 4).

### Avoiding introduction of boxwood blight into a greenery-producing operation

Spores of the boxwood blight pathogen are produced in a sticky matrix and do not spread readily by wind currents. The most likely mechanism for long-distance spread of the boxwood blight pathogen is by movement of infected plants or cuttings, or on infested tools, shoes, clothing, equipment, bags, animals, or vehicles.

1. Greenery producers who maintain their own stock plants should also refer to the VCE publication “Best Management Practices for Boxwood

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### Fig. 1. Boxwood blight leaf spot symptoms. (photo by A. Bordas)

### Fig. 2. Black streaking on stems due to boxwood blight. (photo by M. A. Hansen)

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*Because boxwood blight is a relatively new disease to the United States, some of these recommendations have not been specifically tested in a research setting, but are based on knowledge of the biology of the pathogen.*
Minimizing spread of the pathogen from locations where boxwood blight has been found

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www.ext.vt.edu
Blight Task Force web site for current information on recommended sanitizers.) when moving between different blocks of plants and between different fields.

4. Do not work in fields when plants are wet.

5. Assemble wreaths or other holiday adornments away from existing boxwood plantings.

6. Never discard boxwood plant debris near existing boxwood plantings. Remove boxwood plant debris at the end of each day by vacuuming, bagging, and disposing in the landfill or by burying under two feet of soil. Flaming the ground with an agricultural flamer may also be an option, depending on local fire regulations.

7. Do not compost boxwood plant debris.

8. When planning your tipping (tip-pruning) schedule, start in areas least likely to have boxwood blight and move toward higher risk areas. Always work in highest risk areas LAST to minimize the risk of disease spread to healthy plants.

9. Workers entering any part of a property containing boxwood where the disease has NOT been found should wear clean, laundered clothes, disposable gloves, and shoes that are free of soil. (Sanitize footwear by spraying with 70 percent ethanol or an ethanol-containing disinfectant and allowing to air dry. Refer to the sanitizer table on the Virginia Boxwood Blight Task Force web site for current information on sanitizers.)

10. Alternatively, workers may wear new, disposable gloves and protective shoe, arm, or leg covers while working in boxwood plantings. Change covers between sites or between blocks of plants. Place used covers in plastic bags and dispose in the landfill.

11. Try to limit pet access to boxwood plantings because animals could carry spores from infested areas to healthy plants in non-infested areas.

12. Do not allow infected plant material to be sold as holiday greenery.

Where to send plant samples if boxwood blight is suspected

Accurate diagnosis is the first step in preventing the movement of boxwood blight. Growers from any Virginia county should submit suspect plant samples for diagnosis to the Virginia Tech Plant Disease Clinic through the local Virginia Cooperative Extension office (http://www.ext.vt.edu/offices/). Boxwood samples with symptoms of possible boxwood blight (stems that have leaves with spots or browning, stems with black streaks or leaf drop) should be double-bagged with each bag sealed separately for delivery to the local Extension office. If whole plants are submitted, they should be placed in garbage bags with each bag sealed separately with a twist-tie. Plant samples should be accompanied by a completed plant diagnostic form (VCE #456-097), available at the local Extension office.