

Expanding on the Boxwood Blight Management Decision Guide

Boxwood blight is a serious and contagious boxwood disease. Management decisions will influence the disease progression. Although boxwood blight is serious and spreading in many communities in Virginia, boxwood remains a valuable landscape ornamental. Successful and sustainable landscaping with boxwood currently requires knowledge, attention and care.

Option 1—Do nothing

1. Infected susceptible boxwood will decline and eventually die.
2. Disease will spread in landscape and locally (e.g. neighborhood, town).

Option 2—Remediation after confirmatory diagnosis of boxwood blight

1. Remove diseased, susceptible boxwood promptly OR, if American boxwood, consider alternative approach for American* (below).
2. Remove leaf litter from soil surface (e.g. raking/sweeping, vacuuming, or by using a burn torch/agricultural flamer).
 - a. Diseased boxwood, leaf debris and soil should be double-bagged and removed to the sanitary landfill OR buried 2' deep in soil OR burned (if allowed in your locality).
 - b. **Do not** compost boxwood debris or plant material and **do not** place curbside for brush pickup, since this will spread the disease to new locations via wind-blown leaves and/or municipal mulch.
 - c. Because the fungal spores can stick to tools, equipment, etc., sanitize all tools, equipment, tarps, shoes, gloves, etc., used after removing plants to prevent spread of fungal inoculum to healthy boxwood. For a list of sanitizer recommendations, refer to the Boxwood Blight Task Force website at <https://ext.vt.edu/agriculture/commercial-horticulture/boxwood-blight.html>. It is recommended that vehicles that have been potentially exposed to the boxwood blight fungus be thoroughly washed of debris (e.g. cleaned at an auto spa).
3. Mulch soil surface under existing boxwood and/or replacement boxwood to a depth of approximately 2". (In research studies, a 2"- to 4"-inch mulch layer effectively prevented splash dispersal of boxwood blight spores to lower leaves, but a shallow mulch layer is a better cultural choice for boxwood.)
4. If leaf debris has been incorporated into the soil, removing soil to a depth of 8" to 12" may help eliminate inoculum of the pathogen, but this is often impractical.
5. Apply preventative fungicides, as recommended on the product label, to the infected and non-infected boxwood in the vicinity **whenever weather conditions are favorable for disease development**. (Note that weather conditions in Virginia are favorable much of the year.)
 - a. Products containing the active ingredient, chlorothalonil, and labeled for use on landscape ornamentals, have been shown effective when used preventatively (before the disease is present) on boxwood. Professional landscapers have additional active ingredient options. Refer to the fungicide information on the [Virginia Boxwood Blight Task Force website](#) for more fungicide information.

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- b. Favorable weather conditions for development of boxwood blight: Applications should be made in spring when daytime temperatures reach 60F and prolonged rain is predicted. You can stop spraying when daytime temperatures are regularly above 80F in the summer. Begin sprays again in the fall when temperatures drop below 80F and prolonged rain is predicted. In winter when temperatures regularly stay below 60F you do not need to spray, but pay attention to forecasts for prolonged periods of mild winter weather and rainfall when fungicides might need to be in place.
6. Monitor other boxwood, pachysandra, and sweetbox in the landscape for development of boxwood blight symptoms. (Other plants in the boxwood plant family, Buxaceae, including *Pachysandra* spp. and *Sarcococca* spp., are also susceptible to the disease and should be monitored for boxwood blight. Since they can harbor inoculum for new infections on susceptible boxwood, they should be removed if susceptible boxwood are also in the landscape.)
7. For recommendations on replacement shrubbery and/or boxwood refer to information in "Option 3" below.

*Alternative approach for American boxwood (*Buxus sempervirens*): Currently some researchers are suggesting that while American boxwood is very susceptible to the Boxwood Blight fungus, it may recover (i.e. produce healthy new growth) during dry weather conditions. Additionally, there have been reports of reluctance of home growers and/or landscape professionals to remove very large American boxwood. For this reason, we have provided an alternative approach for infected American boxwood:

- a. Prune and remove diseased branches on American boxwood.
 - i. Because the fungal spores can stick to tools, equipment, etc., sanitize all tools, equipment, tarps, shoes, gloves, etc., used after removing plants to prevent spread of fungal inoculum to healthy boxwood.
 - ii. Follow Steps 2 through 6 (above).
 - b. **Precautionary note:** This approach may be an acceptable alternative to complete removal of infected American boxwood. However, there is not enough research at this time to know how efficacious this approach will be over time in Virginia. Also, keep in mind that although visibly diseased branches may be pruned out, pruning out affected branches will not eliminate the fungus from American boxwood. Further sporulation of the fungus on the American boxwood is likely and these spores can serve as a source of inoculum for healthy, susceptible boxwood in the landscape and neighborhood landscapes. Also note that weather conditions in Virginia are generally favorable for development of boxwood blight and repeated fungicide sprays will be necessary for much of the year on a 7-day to 2-week schedule, depending on product label directions and weather conditions. English boxwood (*Buxus sempervirens* 'Suffruticosa') is extremely susceptible to Boxwood Blight; therefore, no one is suggesting that this approach be used on infected English boxwood.



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Option 3—Replace susceptible boxwood with tolerant (resistant) boxwood cultivars and/or shrub species not susceptible to boxwood blight (*Currently there are no boxwood immune to boxwood blight; however, there are boxwood cultivars that are "tolerant" (also termed "resistant") to boxwood blight. The boxwood blight pathogen may sporulate on tolerant cultivars, but tolerant cultivars do not develop noticeable symptoms of the disease and are not negatively affected by boxwood blight.*

1. If replacing susceptible boxwood with boxwood blight tolerant (resistant) cultivars:
 - a. It is advisable to purchase replacement boxwood from nurseries that participate in the Boxwood Blight Cleanliness Program (BBCP). A list of participating BBCP nurseries is available at <http://www.vdacs.virginia.gov/plant-industry-services-boxwood-blight.shtml> . Home growers who want to buy boxwood produced by nurseries in the BBCP will have to do some work to identify a retail store/nursery that sells such boxwood. It is advisable to identify a retail operation that exclusively sells only boxwood produced in the BBCP to minimize the chance of introducing the disease into a landscape.
2. Only plants in the Buxaceae family (e.g. boxwood [Buxus spp.], pachysandra [Pachysandra spp.] and sweetbox [Sarcococca spp.] have been reported susceptible to boxwood blight in the landscape. If you are considering replacing susceptible boxwood with other shrub species, refer to the Problem-free Shrubs for Virginia Landscapes (<http://pubs.ext.vt.edu/450/450-236/450-236.html>) Virginia Cooperative Extension fact sheet to avoid species of shrubs commonly afflicted with disease problems in Virginia.