



Jerry Faulring

Coping with Boxwood Blight

Boxwood have been a staple of the landscape in this country since colonial times due to their wonderful esthetic, ease of care (used to be), deer resistance, and the many ways they can be used and shaped.

Blight has changed all that. Although frustrating, time consuming, and costly, if we want to continue to plant boxwood, we have to treat it like any other pest. We implement many methods of plant care to assure nurseries and landscapes remain healthy, and of great benefit to the property owner. We know all the reasons great landscapes provide financial, environmental, esthetic, and creative benefit.

The Europeans have been experiencing blight since initially the early nineties and then more widespread by the late nineties. Their response is to learn to live with it. And they have. They are not giving up on boxwood

and have become creative in the blight's management. I believe we should follow their lead. One day there may be a cure but for now we should implement a robust management protocol much the same as how we deal with other pests. A good read from Europe can be found at: <https://www.ebts.org/2015/10/five-methods-of-defence-an-ebts-round-up>

The Maryland Department of Agriculture's (MDA) approach to dealing with the problem has been 'exclusion'; make every effort to keep it out of the state or prevent blight's movement from place to place if found in the state. MDA chose not to implement a quarantine such as is now in place for Pennsylvania and Tennessee. A quarantine requires shipments into these states to be inspected prior to shipping and declared 'apparently free of boxwood blight'. Growers, in some states can implement a Boxwood Blight Compliance

Agreement with their state agricultural department that requires rigid protocols in an attempt to prevent blight from coming from the grower. In many states the compliance agreement is voluntary which is pretty useless. 'Regular' inspections intend to assure a buyer's plants are blight free. The quarantine requirements and compliance agreements in no way guarantee blight free plants, but they are the



Healthy boxwood with no sign of blight

only firewalls available.

From a practical perspective, exclusion and quarantine programs only work if they are well supported by adequate staff with time to do the work. Further, over time, the programs will usually fail. The State invested significant resources, both staff and money to exclude the Emerald Ash Borer. Most exotic pests will succeed; not anyone's fault. Nature is just better at everything than we can hope to be.

When blight first appeared in the United States with Connecticut and North Carolina making the first reports in October 2011, everyone seemed shocked. In the next twelve months it was identified in 10 other states. What happened? One thought is blight was creeping in without our knowing because we didn't know what to look for. The consensus belief is it was disseminated via blighted plants.

I thought, what if the potential for the disease was always here and just needed something to change to evolve? I voiced this thought to others and there were at least some thoughtful responses in support. After all, how did blight come to appear initially in one spot in England? When I need answers, I begin reading everything tied to the subject. I found one scholarly article with the same hypothesis but with no proof. (Nicholas LeBlanc; et. al., Applied Microbiology and Biotechnology, May 2018, Volume 102, Issue 10, pp 4371-4380.)

If you are reading this, you are likely involved with boxwood through construction, as a landscape manager or a grower.

As a contractor, the first thing you need to know as a boxwood buyer is you must make every effort to procure boxwood that are blight free. We propagate our own but if I were to outsource plants I would insist on a phytosanitary certificate or buy from a grower who has an enforced Compliance Agreement. This will not

guarantee blight free plants but is the best you can do. There are growers who now treat their plants very often with fungicides to prevent the appearance of blight at their nursery; this has never been a BMP for growers. It is strongly advised to not buy treated plants as they may have blight that will evolve in the absence of fungicides, unless you plan to provide a program of fungicide care after installation, which may be seen as an opportunity.

Growers should follow the Compliance Agreement protocols established by MDA.

As a landscape manager, you have probably been advised of the many protocols to follow in an effort to prevent blight movement from site to site. Having talked with several landscape managers, the task is daunting and close to impossible if mowing equipment is involved. It is important to note that what appears to be blight is not always blight. Treatment programs should be implemented with caution until blight is confirmed.

Long term we can hope a cure will become available. There are few pests we are at a dead loss to cope with. Even with BMP's, IPM and hundreds of pesticides, we are not always successful, but for the most part we can produce healthy plants. When pests arrive, we can become creative for our own benefit, and press pesticide manufacturers to join the fight.

In the near term, it's the creative thought that can get us through. Box Blight should now be considered just

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Blandy research farm. Boyce, VA. Site of national boxwood trials.

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another pest we must deal with. The installed base of box in this country is priceless. Boxwood is reported by USDA to be the number one selling woody shrub in this country; sales may decline in the near term.

Installed boxwood can be managed with fungicides. Recommendations vary greatly. An evolving website that predicts when spore development is most likely can be found at https://uspest.org/risk/boxwood_app. It is easy to use and well explained in a few paragraphs. If one engages a fungicide treatment program the risk model would be the first place to start. As we know, blight is very sensitive to temperature and moisture. In 2017, there were very few reports of blight in Maryland when rainfall was well below average from July through December. 2018 was the exact opposite with many records broken for rainfall. It was persistently frequent except for 6 weeks in June and July. Blight reports went through the roof.

Fungicides are an effective management tool in the landscape and are being widely implemented in Europe. The hope is we can preserve existing plantings until such time as a cure becomes available. A fungicide program is not a casual approach and must be implemented with discipline. For a list of fungicides and general discussion for their use: <https://ext.vt.edu/agriculture/commercial-horticulture/boxwood-blight.html>. It is generally

thought a contact fungicide should be used regularly and a systemic fungicide be combined with every other treatment. Alternate to fungicides, a German company has developed a product called TOPBUXUS Health-Mix that is apparently being widely used in Europe. I bought a sample on Amazon just to see what it is all about. It is a dry material combined with water to

be sprayed several times per year in place of fungicides. The product is actually promoted by European Boxwood and Topiary Society <https://www.ebts.org/ebts-uk-shop/>. Larger quantities can be imported. TOPBUXUS does not have a typical EPA label or registration. It may not be considered a pesticide in Europe but if it proclaims to manage blight, a fungus, it must be a fungicide.

Reportedly resistant plants have been developed in Belgium by Didier Hermans of Herplants (phot below), a boxwood nursery, in cooperation with the Flemish Institute of Agriculture, Fisheries and Food Research. It was a ten-year project that started with hybridization producing 10,000 new and genetically different plants. Approximately 200 new plants showed resistance in controlled laboratory research. Three of these plants are now in production due to their growth habit being suitable for landscape use. It will be many years before they become available to the U.S. market. Researchers believe the box blight fungus will not evolve to become resistant to fungicides. Some wonder if the newly developed resistant plants will lose their resistance over time. 🍄

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Didier Hermans of Herplants