

## **What Is the Matter With My Boxwood**

*Backyard Wisdom - January 2021*

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“What is the matter with my Boxwood?” Lesley and I have been asked this question much too often in the last few years. Boxwood (*Buxus sempervrens*, *microphylla*, etc.) have many troubles, for example: *Leaf Minors*, *Leaf Curlers*, *Spider Mites*, *Psyllid*, *Volutella* and *Phytophora fungal blights*, *Nematodes*, too much water on overhead sprinklers, or too little water, winter damage, frozen soils, heavy soils, *Boxwood Decline* and most recently, *Boxwood Blight*. None of these by themselves are the cause of most of the Boxwood dieback. We can go through all kinds of soil and tissue samples, fertilizers, fungicide and insecticide sprays and still be missing the main cause.

**Because the main problem with Boxwood is not a disease or an insect. It is improper placement and treatment in the landscape.**

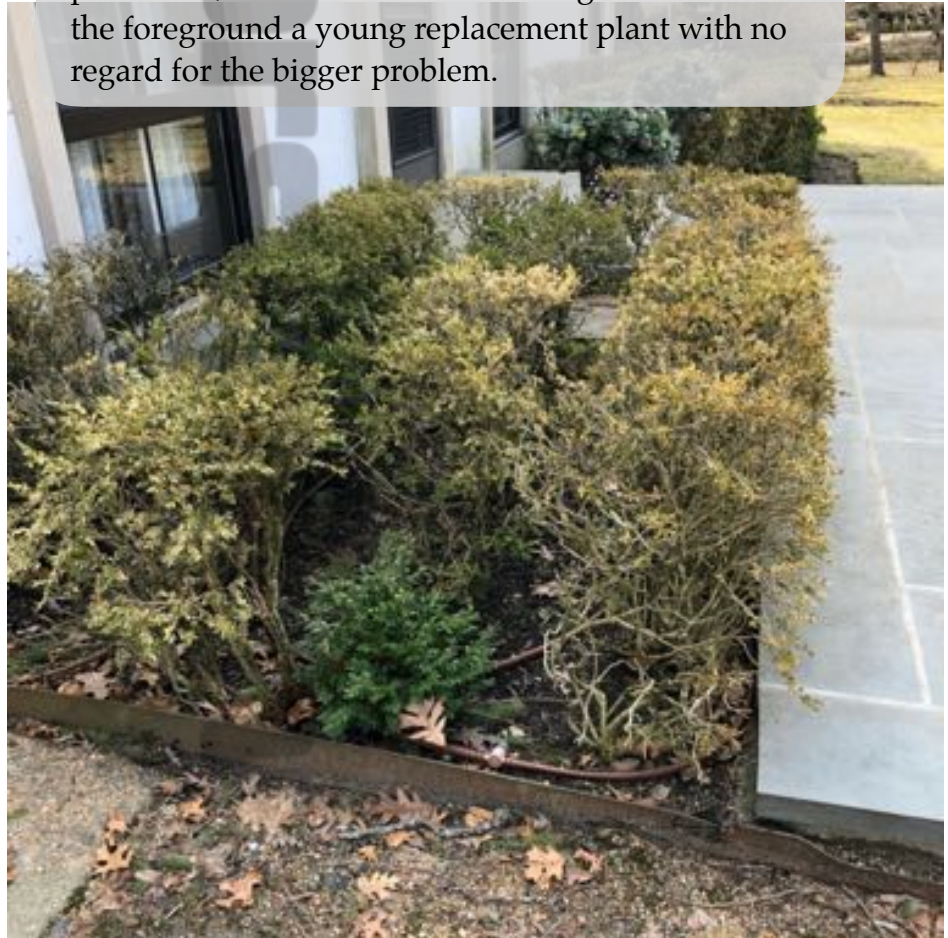
Forty-five years ago at the University of Illinois I was taught that Boxwood was not hardy in Northeast Illinois, to use it sparingly and only in protected locations. Since then the temperatures have gone up and more hardy Boxwood have been developed. Because they are such a wonderful evergreen they have been planted... and planted... and over planted. Don't get me wrong, I love Boxwood. I recommend that they be planted and we have them on our property. (Only Lesley is allowed to trim them though, because she says I trim too hard! Can you believe it?)

So let's talk about where we can safely plant Boxwood and how to successfully maintain it.

***First, I must point out that there were no native evergreens in Northeast Illinois before European settlement.***

Therefore, we know that they do not like it here. Why? The soil is heavy, alkaline, clay and most evergreens like just the opposite: light, acidic, sandy soil, like they have in

Boxwood suffering from desiccation, improper placement, winter burn and shearing. You can see in the foreground a young replacement plant with no regard for the bigger problem.





neighboring Michigan. So *whenever we plant **any** evergreen in Northeast Illinois it is at a disadvantage from the get go.* We need to plan accordingly and maintain them carefully.

Next, because their roots cannot develop well in our heavy clay soil we need to plant them high, above the soil surface (at least 6") and surround them with 6" of mulch. In as little as 2 weeks the roots will grow happily into the mulch. **Healthy roots** are the key to Boxwood being able to defend themselves against insects and diseases.

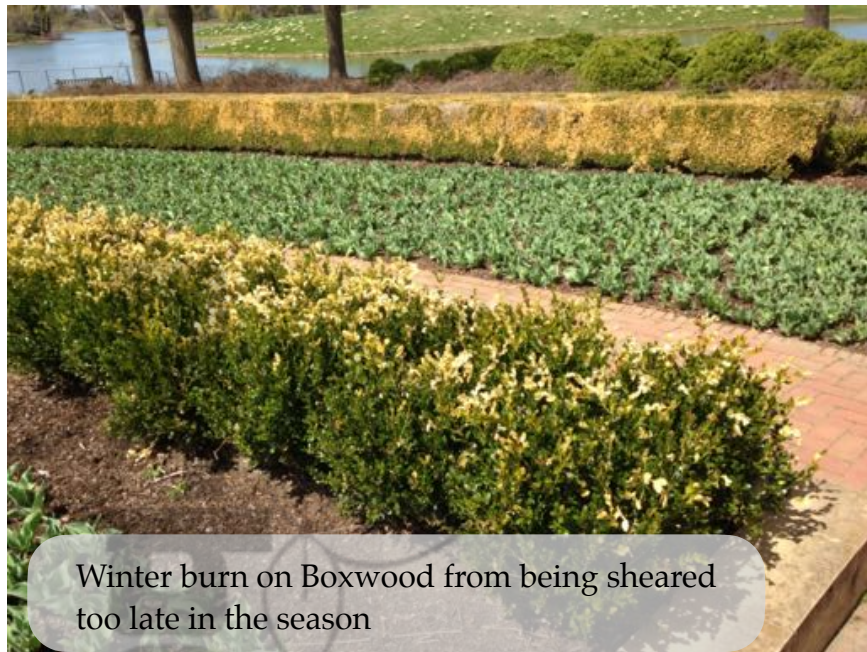
Proper placement is the next important step. Evergreens keep their foliage throughout the winter and they are built to withstand very cold temperatures. The leaves curl up and the stomates (little breathing holes) close to protect themselves from winter desiccation. When it warms up however, their leaves or needles open their stomates and transpire moisture into the air. But where does the moisture come from, if the roots are frozen? Boxwood suffer from dehydration if they are warmed in the winter. Like us, they cannot stay healthy if they run out of water. We tend to plant Boxwood lining our sidewalks, drives, and next to our houses as foundation plantings. As a result, the winter

sunshine heats the adjacent pavement or building, causing the Boxwood to warm during the daytime and dehydrate. Then, at night the temperature plunges, often as much as 70 degrees Fahrenheit.

If that's not enough, many people trim their Boxwood so they are more easily damaged. You should **never** shear your Boxwood in the fall. This is because trimming **stimulates growth** late season growth which is not winter hardened and is likely to be winter burned. Trim only in the spring and summer. If you shear the Boxwood, you must also make 10% deeper cuts throughout the plant. This is because shearing stimulates growth on the outside of the plant only so the edges get thicker and thicker allowing less air and light

penetration which promotes fungal growth. (see our *Shrub Trimming Abstract™*) (picture of winter burned Boxwood here)

Finally, **formal shearing** sets up an expensive, artificial and unhealthy lifestyle for Boxwood. They do not grow like soldiers in a row in nature and shearing to keep them that way is fighting



Winter burn on Boxwood from being sheared too late in the season



These Boxwood were killed by being placed too close to the drive and being too heavily irrigated (watered).

a losing battle in Northeast Illinois. It's the perfect storm for our poor Boxwood. When they are weakened by poor root development, winter desiccation and formal shearing they are sitting ducks for all of the above attackers.

*In light of all that, should we just give up on Boxwood?* I really hope not, because they are a wonderful addition to our landscapes. We need to just be aware of these guidelines:

- 1) Use Boxwood sparingly in places where they don't have to *fight for their lives*. You can plant in groups of one, two or three, not in long lines, nor on edges of pavement or tight to the house.
- 2) Most American landscapes do not need foundation plantings because modern foundations are lovely and don't need to be covered up. Instead, use informal plantings to soften hard lines and accent the beauty of the structure.
- 3) Near any walks, drives or foundations where there is reflected radiation use native trees, shrubs and perennials which go dormant and thrive in these conditions.
- 4) Plant Boxwood high, surround with mulch and make sure not to sprinkle the leaves. If you use mulch, supplemental watering is unnecessary and in most cases, it kills more plants than it saves. (see *Watering Abstract™*)
- 5) Allow Boxwood to grow like Boxwood! Left unsheared, Boxwood's natural habit is low, flowing and lovely. If it is too big for its location perhaps it is time to rethink the location.
- 6) It seems like we should be able to leave all this up to your landscaper. However, our landscape designers and contractors often will do just what we ask of them. So remember it is up to you to carefully discuss these things with your landscape architects, designers, and contractors so they know what you desire in your landscape. Then it is up to the landscape professionals to do the right thing and fulfill your wishes.
- 7) We recognize that many of you have gardens full of Boxwood. We continue to research ways to treat and mitigate the difficult stresses that Boxwood encounter in NE Illinois.



These Boxwood have NEVER suffered from winter burn, desiccation, shearing, or insect or disease attacks. They are 25 years old and have lived through at least 2 severe polar vortex winters. They are in our back yard and provide a lovely screen for our garden potager.

