



Rhode Island Department of Environmental Management

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BEECH LEAF DISEASE IS WIDESPREAD IN RHODE ISLAND: DEM NO LONGER REQUESTS REPORTS

PROVIDENCE, RI – The Rhode Island Department of Environmental Management (DEM) is advising the public that given the current statewide extent of Beech Leaf Disease (BLD), reports to the DEM [Forest Health](#) and [Cooperative Agricultural](#)



Progression of BLD leaf symptoms. Photo credits: Alana Russell (left) and Fern Graves (center and right), DEM Division of Agriculture and Forestry.

[Pest Survey \(CAPS\)](#) programs are no longer requested. DEM's [Division of Agriculture and Forest Environment](#) (DAFE) thanks the public for their vigilance in reporting BLD, which was [first detected in southwestern Rhode Island in 2020](#). Since then, it has spread rapidly throughout the state and was officially confirmed in all five RI counties in 2022.

BLD is caused by the foliar nematode *Litylenchus crenatae mccannii*, a microscopic worm, and affects primarily American beech (*Fagus grandifolia*), but also European (*F. sylvatica*) and Oriental (*F. orientalis*) beech. All ages and sizes of beech are affected although the rate of decline can vary based on tree size. Mature beech trees may succumb in six to 10 years without intervention, and saplings in as little as two years. Early BLD symptoms include dark striping on the leaves, parallel to the leaf veins, and are best seen by looking upward into the backlit canopy. Damage from the nematodes cause the leaves to produce insufficient chlorophyll, which gives leaves their green color. Later in the season, these dark stripes can become discolored yellowed bands. Eventually the affected foliage withers, dries, and curls. Advanced disease symptoms include premature leaf drop, aborted buds, and branch and tip dieback.

Researchers have been working to investigate disease progression, transmission, and treatment. Currently, there is no defined treatment for control of BLD in the forested landscape. For landscape trees, encouraging results have been [demonstrated by researchers in Ohio](#) and, preliminarily, in New England using a phosphite fertilizer treatment to stimulate beech tree defenses. The product is applied two times per year between the months of May and August and can be applied by tree owners. It is also recommended that tree owners irrigate landscape trees with 1" of water either by irrigation or precipitation, per week over the entire root



area, which is approximately twice the diameter of the crown, to reduce stress. More details on these potential treatment methods can be found within [DEM's BLD factsheet](#).

It is still unknown how the BLD-causing nematode is transported to uninfected beech trees. The vector, a living organism that acts as an intermediary host for the disease, has not yet been identified but it is suspected that birds are involved with

A declining American Beech tree infected with BLD. Photo credit: Heather Faubert, URI Plant Clinic Director.

transporting the nematodes. Until the vector is better understood, maintaining tree health and keeping tree stress to a minimum is the best defense. As research develops, management options may become available that are suited to landscape trees but may also require long-term, repeated treatments. The cost of such treatments may not be possible to deliver to forested environments. DEM will continue to monitor ongoing research for updates that may help protect the health and resiliency of RI's rural and urban forests.

Additional information about the disease is available on DAFE's [Current Threats](#) webpage, and more information on potential treatment methods and research can be found in the University of Rhode Island's [2023 BLD update](#).

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