SHREINER

TREE CARE

BEECH LEAF DISEASE

The American beech tree (*Fagus grandifolia*) is native to Pennsylvania. They are large, stately trees with gray, smooth bark. Their leaves are oval with serrated edges, forming a broad, rounded crown. European and Japanese beech species are also susceptible to this emerging pathogen, Beech Leaf Disease.

American beech (Fagus grandifolia) with its smooth gray bark.

Beech seeds: Brown, spiky husk, produces 1-3 triangular nuts inside

Beech leaf bud: Unique oblong shape with scales

THE GROWING CONCERN

Beech Leaf Disease (BLD) is a relatively new threat to our forest. First identified in Ohio in 2012, BLD affects all species of beech trees. BLD is caused by a microscopic nematode (*Litylenchus crenatae mccannii*) which feeds on the developing buds of beech trees. The feeding causes distinct dark green banding to develop on American beech leaves. As the disease progresses, leaves become further distorted and their ability to photosynthesize diminishes, leading to premature defoliation. European and Japanese beech leaves hide their damage longer, but ultimately become distorted and appear torn as the disease progresses.

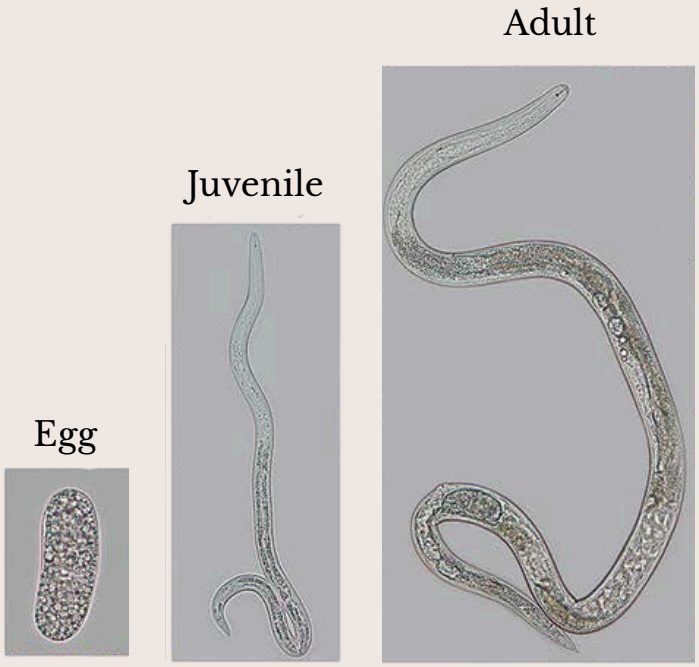
Distinct dark green banding between the veins of beech leaves—a characteristic early symptom of Beech Leaf Disease.

THE WILL TO SURVIVE

A stressed tree responds by producing a second set of leaves.

Early defoliation can trigger a tree's survival response, causing it to produce a late season second flush of growth. This drains the trees energy reserves. Several years of repeated defoliation and diminished photosynthesis can be deadly for a beech tree. Protecting your beech tree foliage is vital to its survival.

BEECH LEAF DISEASE NEMATODE



Microscopic view of the foliar nematode (Litylenchus crenatae mccannii) in developmental stages.

The nematode responsible for beech leaf disease spends its summer in diseased leaves, and migrates into newly forming buds late July through August. Nematodes spend their winter feeding on developing leaf tissue. Studies have found nearly 10,000 nematodes in a single bud. Because of their small size, they are easily spread by wind, rain, and local wildlife.

PRESERVING THE HEALTH OF YOUR BEECH TREES

Our arborists are in constant communication with research scientists and plant pathology labs throughout the northeast. We are implementing the most effective control measures to protect our clients' beech trees. Current treatments will not cure BLD, but are highly effective if caught early.

Our Plant Health Care team is using an injection system to deliver a precise treatment directly into the tree's vascular system. Timing is crucial with this treatment so that the tree has time to translocate the material into the buds before they fully develop. Small diameter beech trees should not be injected. Rather, it is recommended to treat their canopies with a foliar nematicide during bud development.

BEECH LEAF DISEASE TREATMENT & TIMING

BLD has quickly spread through our area over the past several years. Our arborists have noticed a significant increase in the damaging affects of BLD this season. Our Plant Health Care team is actively protecting our customers' trees, reducing the damaging effects of the BLD nematode.

FALL 2025 RECOMMENDATIONS

Specialty Soil Nutrients

As beech trees struggle to cope with BLD they are depleting their energy reserves. Maintaining proper soil nutrition through fertilization will promote the health and vigor of your tree by replenishing lost nutrients.

Plant Cell Strengthening

Trunk applications of phosphites trigger a tree's natural defense mechanisms. By strengthening cell walls, these applications act like a boost of energy, maximizing resilience and allowing the tree to fight back against BLD

SPRING 2026

Trunk injections will be performed at full leaf expansion, which occurs from early May through mid-August when buds are set for next spring. This will provide two years of suppression of BLD nematodes.

PLEASE CONTACT YOUR SHREINER ARBORIST TO DISCUSS THE CARE OF YOUR BEECH TREES

SHREINER
TREE CARE

Call, text, or email to schedule an appointment.

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Think Trees!