



Delaware Forest Service

Delaware Department of Agriculture

Beech Leaf Disease

An emerging threat to Delaware's Forests

Beech Leaf Disease (BLD) is a recently discovered tree disease first identified in 2012 near Cleveland, Ohio. It is caused by a microscopic roundworm (nematode) that attacks the leaves and buds of beech trees, leading to progressive canopy decline and, eventually, tree mortality.

Symptoms

BLD symptoms appear on the leaves as they emerge in the spring; the damage is caused by nematodes in the buds before leaf out. Common signs include:

- Dark, thickened bands between the leaf veins (interveinal banding), most visible when viewing leaves from below
- Yellowing or browning patches on leaves.
- Shrunk, curled, or distorted foliage.
- Aborted buds that fail to produce leaves.



Beech Leaf Disease was first detected in Delaware in 2023. Since then, it has spread rapidly through much of New Castle County and is expected to continue spreading statewide in the coming years unless treatments are applied in advance.

BLD affects several beech species:

- American beech (*Fagus grandifolia*)
- European beech (*F. sylvatica*)
- Oriental beech (*F. orientalis*)
- Chinese beech (*F. engleriana*)

Young trees and saplings are especially vulnerable, with mortality occurring within 4–5 years after symptoms first appear. In areas of northeast Ohio where BLD has been present the longest (about 12 years), mortality of mature trees has only recently become widespread. Researchers are still determining whether some American beech trees may have natural tolerance to the disease.

Why It Matters

Beech trees are a critical part of Delaware's forest ecosystem, providing food and habitat for wildlife, stabilizing soils, and contributing to vibrant, diverse woodlands. Continued spread of BLD threatens canopy health, forest regeneration, and the long-term presence of beech across the state.

