

Bacterial Leaf Scorch

TREE DOCTOR TIPS

Bacterial Leaf Scorch

(*Xylella fastidiosa*)

DESCRIPTION:

Bacterial leaf scorch, also known as Marginal leaf burn, is a chronic and systemic disease mostly affecting oaks and maples. This fatal condition is sometimes mistaken for Oak wilt or Dutch elm disease, or drought and heat stress. There is no cure.

HOSTS:

Bacterial leaf scorch is most often found in pin oak, red oak, shingle oak and white oak. It is also found in elm, mulberry, pecan, red maple, sugar maple and sycamore.

BIOLOGY AND SYMPTOMS:

Bacterial leaf scorch is a relatively new disease thought to be caused by the bacterium *Xylella fastidiosa*. The bacteria invade the xylem tissues of the plant, restricting the flow of water from the roots to the crown. Symptoms include premature browning and leaf drop. This condition progressively worsens over a period of three to eight years.

MANAGEMENT:

Professional, laboratory diagnosis is the only way to confirm this disease. There is no cure for bacterial leaf scorch. Trunk injections of antibiotics, proper irrigation and mulching may reduce symptoms and slow disease progression. Pruning diseased tree branches has not proven effective.



FIGURE A. BACTERIAL LEAF SCORCH (*Xylella fastidiosa*) ON PIN OAK LEAVES (Photo credit: Penn State Department of Plant Pathology & Environmental Microbiology Archives, Penn State University, Bugwood.org)

FIGURE B. BACTERIAL LEAF SCORCH, PECAN (Photo credit: Rebecca A. Melanson, Mississippi State University Extension, Bugwood.org)

The scientists at **The Davey Institute** laboratory and research facility support our arborists and technicians in diagnosing and prescribing based on the latest arboricultural science. For specific treatment and application details, your arborist may consult *The Davey Institute PHC Handbook*.

