# **PHYTOPHTHORA**



### WHAT IS THE THREAT:

Phytophthora root rot disease is caused by several species of the fungus Phytophthora. This disease can attack most plants but trees and shrubs in the Ericaceous family, such as Rhododendron or Azalea, are very susceptible. When trees are over-watered or standing water saturates soils for extended periods of time, this disease becomes active.

#### WHERE IS THE THREAT:

Phytophthora can occur most anywhere in the US but is associated with heavy clay soils. Trees affected include oak, ash, cherry, pine, spruce, hemlock, and pear to name a few. The southeastern US has a high resident population of Phytophthora and therefore is a common region for this disease to occur.

#### SYMPTOMS:

Phytophthora attacks fine feeder roots and travels up into larger root s. Above ground symptoms include chlorosis, smaller leaves, progressive decline of leaf and shoot growth, thinning of the crown and branch dieback. Fine roots are missing from soil samples and those remaining roots often slough off the outer cortex. In some instances, the fungus reaches the tree trunk and will girdle the base. Scraping bark from the margin of the dead trunk will show decay advancing upwards and around the trunk.

## WHAT TO DO ABOUT IT:

A treatment with PHOSPHO-jet™ will suppress fungal activity and boost the tree's own health defense system. This product has the options to be trunk injected, bark sprayed or drenched depending upon preference. When the disease advances to the trunk base, continued treatment once or twice yearly will suppress the fungus and extend the useful life of the tree.



Bleeding canker



Symptoms



Injury to young tree

Photo Credit: Header Image-Rot on young apple tree: William M. Brown Jr., Bugwood.org Bleeding Canker: Joseph O'Brien, USDA Forest Service, Bugwood.org Symptoms: Joseph OBrien, USDA Forest Service, Bugwood.org Injury to young tree: John Ghent, John Ghent, Bugwood.org