

Plant Disease Fact Sheet

Thousand Cankers Disease

Pityophthorus juglandis

Description

Walnut Twig Beetles are responsible for the spread of Thousand Cankers Disease. The fungus, *Geosmithia morbida*, is introduced to trees when the adult beetles bore into the vascular system to feed. As the fungus colonizes the surrounding tissue it eventually kills the phloem and cambium. As the name suggests, thousands of cankers form on the tree. Nutrient transport is shut down as the cankers girdle branches and ultimately the entire tree.

Symptoms & Diagnosis

Symptoms begin in the upper canopy as leaves rapidly yellow, wilt, and eventually die. Many brown wilted leaves will remain attached to branches. The bark may show black stains around small beetle exit holes on dead branches. Trees die within 3 years of the first symptoms appearing.

Treatment

There is currently no treatment available for TCD. Controlling borers on mature Walnut Trees is impractical. Once the symptoms appear, it is already too late to treat as cankers have already girdled the vascular system. Healthy, vigorous trees are more resistant to Walnut Twig Beetles.

Management

Managing tree stress is a crucial component of insect management. Tree can remain healthier and aesthetically pleasing longer by properly managing water, avoiding compaction and grade changes, and controlling insects. Fertilization may be used to improve plant vigor.

Affected Species

Juglans nigra Black Walnut



Walnut Twig Beetles introduce the canker forming fungus when they bore into twigs and branches to feed on a tree's cambium.



Cankers eventually kill trees as they coalesce and shut down nutrient transport to the canopy.