Understanding & Managing Sycamore Anthracnose

Sycamore Anthracnose
Sycamore Trees

What is Sycamore Anthracnose?
Sycamore anthracnose, *Gnomonia leptostyla*, is a fungal disease that affects sycamores throughout the United States. While rarely deadly, it can make the trees unsightly and cause large areas of the tree to die back. The fungus attacks the buds and twigs, so infected trees often have “witches brooms” (many twigs originating from a common point) on the ends of their branches, which consist mostly of dead twigs.

Photo, top left: The tree on the left was protected with Arbotect™ and the tree on the right was not. (Courtesy of Morton Arboretum) Right: The tree on the left was protected with Arbotect™ and the tree on the right was not. (Courtesy of Bartlett labs) Below, top: Arbotect protection also reduces powdery mildew infections by 35%. Below, bottom: Leaf infections begin as inconspicuous lesions on the leaves, but are the source of new infections in the tree.

Biology
There are four stages of the disease that occur every year. The disease cycle begins with leaf infection. In the spring, leaves become infected from spores that are emitted from the twigs. The fungus grows down the leaf and back into the new twig where it will live usually for 2 years. When environmental conditions are cool, the fungus will often grow throughout the twig and infect buds and newly forming leaves from the inside.

Susceptible Trees
Sycamore anthracnose most commonly infects American sycamore, while London planetree exhibits varying degrees of resistance, Oriental planetree is completely unaffected.

Signs and Symptoms
• Witches brooming, and a twisted gnarled growth pattern.
• Cankers on twigs.
• Curling of new shoots.
• Twig dieback.
• Black to brown lesions on the leaves.
Root flare injections with Arbotect® are about the only way to protect new branch growth from sycamore anthracnose.

The purpose of treatment for sycamore anthracnose is to protect the 1-2 year old twigs from becoming infected and to keep the fungus out of new woody tissue. It takes two seasons after treatment for the tree to look much better because systemic fungicide injections do not protect leaves from spore infection and cannot cure already infected tissue.

Macro-infusion with the systemic fungicide Arbotect® has proven effective 90-95% in controlling the symptoms and reducing the injury from sycamore anthracnose. Readily moving into new growth, Arbotect® lasts for three years in your tree. The best time to inject is in July, after the affected leaves have regrown, up until fall color change.

Treatment Strategies

What Can I Expect After Treating with Arbotect®?

- **First season:** In the first season post treatment, the tree will still exhibit sycamore anthracnose leaf infection symptoms, which can include blotched leaves and even some defoliation. Twigs will stop becoming infected.

- **Second season:** Arbotect® prevents new twig cankers from forming, so there will be a significant reduction in leaf blotching.

- **Third season:** In the third season following treatment, the tree will have further significant reduction in leaf blotching and defoliation. By re-treating the tree every 3 years, protection will be maintained.

DIY Shopping List

**Option 1:**

**Application Type – High Volume Macro Infusion**

**DIY Product/Equipment Needed**

- Arbotect®
- High helix drill bits and drill
- High Volume Macro-Infusion Pump Kit
- Shovel and hand trowel
- Stiff bristled hand brush