

# Anthracnose Disease of Deciduous Trees

## TREE DOCTOR TIPS

### Anthracnose Disease of Deciduous Trees (*Gleosporium* spp. and *Apiognomonia* spp.)

#### DESCRIPTION:

Anthracnose is a common and destructive group of fungal pathogens that attack various shade trees.

#### HOSTS:

Ash (*Fraxinum* spp.); maple (*Acer* spp.); oak (*Quercus* spp.); sycamore (*Platanus* spp.); dogwood (*Cornus* spp.)

#### BIOLOGY AND SYMPTOMS:

Extended periods of cool, wet weather exacerbate and make anthracnose difficult to control with foliar fungicide applications.

Generally, the fungus overwinters in infected, dead leaves lying on the ground. On sycamore, the pathogen also overwinters in infected buds, twigs and cankers. During cool, wet springs, minute blister-like swellings form on infected tissues. These swellings release thousands of spores disseminating via wind, to infect new leaves.

Brown necrotic tissue develops along leaf veins, which leads to premature leaf drop. Depending on the severity of the disease, there are varying amounts of leaf drop each season.

#### Ash symptoms include:

- Irregularly shaped, brown areas along veins on new leaves
- In late summer/early fall severe infection can cause premature leaf drop

#### Maple symptoms include:

- Brown lesions appear at leaf veins and extend inward

#### Oak symptoms include:

- White oaks are severely affected when new leaves are extending and there are prolonged periods of cool, moist weather
- On the lower branches, leaves have large dead areas between leaf veins
- The following spring, twig and branch dieback may be evident

#### Sycamore symptoms include:

- Areas along leaf veins turn tan to brown (Figure B)
- The infection moves into petioles and stems
- Buds turn gray-brown and wilt
- In the stems, cankers develop as dead, sunken areas
- There is severe canopy reduction and deformation or witches' brooming

#### MANAGEMENT:

1. To help disease-stressed trees and reduce defoliation, trees need to be fertilized and irrigated during dry periods.
2. To reduce potential infection, rake up and destroy infected leaves.
3. Prune off cankered branches to stop infection from spreading.
4. Apply a fungicide to tree leaves during leaf expansion to minimize leaf infection and defoliation.
5. If weather is cool and wet for prolonged periods of time, foliar applications may not provide satisfactory results.
6. Fungicide trunk injections are recommended for sycamore anthracnose management on trees greater than 2 feet in diameter. One injection can provide two years of disease suppression. Trunk injections can reduce disease even when there is cool, wet weather favoring disease development.



A



B

FIGURE A. ASH ANTHRACNOSE CAUSES BROWN LESIONS ON LEAVES; LEAVES AND LEAFLETS DROP EARLY IN THE SPRING

FIGURE B. BEGINNING STAGES OF SYCAMORE ANTHRACNOSE

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*.

