

Understand and Manage

# Anthracnose

**Anthracnose** is not a specific fungal disease, but rather a term that describes similar symptoms on the leaves of trees that are caused by many different fungal organisms.

Anthracnose infects many species of hardwood trees causing dead lesions on the leaves. These lesions disrupt photosynthesis and transpiration, which can lead to early leaf drop in the spring, but a second flush of leaves often follows. Thicker, mature leaves are less susceptible to infection. Multiple years of defoliation from anthracnose can reduce tree health and predispose them to other insects and diseases.

Anthracnose can significantly reduce the aesthetic qualities of shade trees because of the early defoliation and blemishing to the leaves that it causes. Heavy infections can reduce growth and greatly influence the vigor of urban trees. Most anthracnose infections are dependent on cool, wet weather. If spring weather is dry, anthracnose may not be a serious problem that year.

## Biology for Majority of Anthracnose Fungi

- The pathogen overwinters in infected leaves on the ground from the previous year or on the tree in crevices on the buds, twigs, and bark
- In spring, overwintered spores (ascospores) mature and are discharged over a period of 5 to 9 weeks.
- Wind and splashing rain carry spores from infected leaves to new growth on nearby trees where new infections begin.
- In late summer or early fall the primary infections produce secondary spores and create new infections, which can continue through the growing season during wet periods.



*leaves on the ground in midsummer is a symptom of anthracnose and will leave a thin or weak appearing canopy*



*leaf symptoms on ash in midsummer*



*leaf symptoms on oak in midsummer*

**Susceptible Hosts:** Many hardwood species including:

- |         |            |                 |
|---------|------------|-----------------|
| • Ash   | • Dogwood  | • Horsechestnut |
| • Oak   | • Sycamore | • Tulip Tree    |
| • Maple | • Linden   | • Walnut        |
| • Birch | • Catalpa  | • Elm           |

**Distribution:** Throughout the native and introduced ranges of the host trees

**Pathogen:** Many fungal species are responsible for anthracnose infections. Most are host specific.

## Symptoms

- In cool, wet springs, large tannish-brown irregular lesions occur on expanding leaflets, especially along the margins and veins.
- Leaves may become twisted and wrinkled.
- Early leaf drop, particularly from the lower parts of the canopy.

## Signs

- The velvety appearance of the leaf spots is the result of spore production on the leaf surface but most of the signs will be microscopic.

# Treatment: Anthracnose

## Management Strategy Summary

The need for fungicides depends on the susceptibility of the species and weather conditions. Since most anthracnose fungi are dependent on wet weather, fungicide applications may be needed for control during wet seasons. Proper sanitation, pruning, and watering, may suffice during dry seasons. Fungicide applications are preventive only and need to be timed properly for effective control.

It is important that the trees susceptible to anthracnose are treated in the spring time as this is when the infection occurs and not in midsummer when the symptoms begin to appear.

**Product:** Myclotect fungicide

**Timing:** Three applications usually are made starting at bud break and continuing at 10-14 day intervals. Drier springs may require only two applications, wetter springs may require as many as four.

**Retreatments:** Anthracnose is a disease that must be treated each year

**Application Method:** Foliar spray

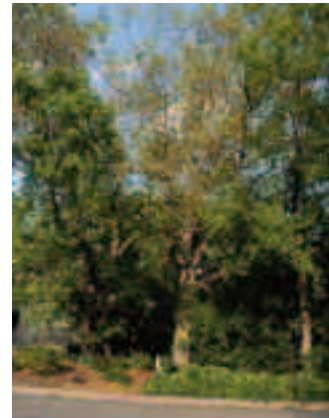
**Myclotect**<sup>™</sup>  
fungicide



*treatment of anthracnose is done by spraying the leaves in the spring*

## Other Treatment Practices:

- Avoid wetting the foliage with irrigation during the growing season.
- Rake and remove fallen leaves from yard in autumn to reduce spores.
- Each winter, prune suckers and branches throughout the crown to improve air circulation.



*trees that are susceptible to anthracnose will become infected while non-susceptible trees will not*