



TEXAS A&M FOREST SERVICE

Tree Health Issues

Anthracnose

Anthracnose is a name for diseases caused by several closely related fungi, plants that reproduce by means of spores which spread the disease when moved by wind, rain, or mechanical means from one host to another. It affects many deciduous trees resulting in a wide range of symptoms including leaf spots, blotches or distortion, defoliation, shoot blight, twig cankers and dieback. It occurs most commonly and severely on sycamore, ash, oak, elm, dogwood, maple and occasionally on hickories and walnuts. In most cases, anthracnose does not cause permanent damage to established trees. However, consecutive years of defoliation can decrease the tree's vigor, weakening the tree and thereby predisposing the plant to opportunistic pests that may further harm or damage the tree.

Symptoms

Symptoms on infected leaves range from tiny dead spots to large circular or irregular dead blotches, depending on the tree species. If the leaves are very young when infected, they can become curled and distorted with only a portion of each leaf dying. Dead areas can be black, brown, or purple. On sycamore and maple infected areas are often found along the veins and midrib of the leaf. Infected leaves on oaks and elm may have small tan, brown, black, or tarlike spots. The dead areas may merge until a large section or the whole leaf dies. Infection in the early spring may turn the leaves black so that they resemble leaves damaged by frost. If they are not killed by the fungi, young leaves may become distorted by the unequal growth in healthy and infected parts. Distorted leaves are common on oaks.



Spread of Infection

Anthracnose fungi overwinter in infected twigs or dead leaf litter. In the spring during rainy periods, large numbers of microscopic spores are discharged by the fungi. The spores are windblown or splashed by rain onto the young, growing leaves of host trees. During wet weather the spores germinate and the fungi penetrate the leaves, killing new leaf tissue. Anthracnose diseases may be severe in years with long, cool, rainy periods; but if the following year is warm and dry, anthracnose may be inconspicuous or absent. On some species, the fungi in the infected areas of new leaves produce secondary spores, called summer spores; wind and splashing rain spread these spores from leaf to leaf. The rapid increase of anthracnose in the summer and early fall is caused by summer spores.



Management and Control

Once symptoms develop or become severe, anthracnose can't be effectively controlled during the current season. Rake and dispose of fallen leaves and twigs during the growing season and in fall. If possible, properly prune during the winter to increase air circulation and remove the previous season's infected twigs and branches, remembering to properly dispose of all infected debris. Also, avoid above ground sprinklers or irrigation systems that may wet the leaves.

Fungicides

Fungicides are usually not necessary unless a tree has been completely defoliated for several years in a row. These fungicides are preventative, they protect healthy un-infected tissue and don't eradicate existing infections, so they should be applied in the spring before rainy periods and before symptoms appear on the leaves. Proper timing of fungicide applications can vary widely from growing season to growing season and therefore can be difficult to predict. For large trees, high-pressure spraying equipment is needed in order to get complete coverage.

If fungicides are necessary, hire an ISA Certified Arborist who can diagnose and recommend the proper treatment. To locate a certified arborist, visit <http://www.isa-arbor.com/findanarborist/>.