

Sycamore anthracnose

The fungus *Apiognomonina veneta* causes sycamore anthracnose twig, bud, shoot, and leaf blight.



Host plants:

Sycamore anthracnose readily infects American sycamore (*Platanus occidentalis*), while London planetree (*Platanus x acerifolia*), exhibits varying degrees of resistance and Oriental planetree (*P. orientalis*) is resistant.

Description:

The most common symptom of sycamore anthracnose is slow leafing out after mild winters and/or cool, wet springs. Dead areas or blotches on leaves in late spring or summer are also common. Infected areas are often along the veins and midrib of the leaf, and dead areas may merge until the whole leaf dies. When severely infected, leaves drop off prematurely. If defoliation occurs in spring or early summer, a tree will usually produce a second flush of leaves. Visible symptoms are obvious on the leaves, however sycamore anthracnose also affects twigs, buds, and branches.

Disease cycle:

There are three distinct but often overlapping stages of sycamore anthracnose: dormant twig and branch canker/bud blight, shoot blight, and leaf blight. The fungus is active in twigs and branches during dormancy during mild episodes in the fall/winter/early spring. Active fungal growth within 1-year-old twigs kills the tips. In addition, the fungus often grows into older branches below the dead twigs forming branch cankers. Bud blight occurs during the same period and the fungus grows into individual buds and kills them before they break open.



**Left: (top)
Bud blight
and branch
canker.
(bottom)
Shoot blight
and twig
canker.**



**Right: (top)
tufted
growth in
crown in
spring.
(bottom)
Close-up of
crown with
shoot and
leaf blight.**

Photos: (left-top) J. R. Hartman and (right + left-bottom) E. M. Dutky, *Diseases of Woody Ornamentals and Trees*. APS Press.

Later during wet springs, fruiting structures mature in fallen leaves, break through the bark of dead twigs and cankered branches, and disperse spores via wind and rain splash. This initiates the shoot blight stage as spores infect emerging shoots and developing leaves, which suddenly die. The leaf blight stage appears during wet

periods in late spring or early summer when spores produced on twigs and blighted shoots infect both young and mature leaves. Brown spots or blotches become visible on diseased leaves with dark-brown fruiting structures developing on the spots later in the season. Thus, sycamore anthracnose fungi survive the winter on infected leaves as well as in infected buds, twigs, and cankered branches.

Management strategies:

Practices that increase air movement and sunlight penetration, such as thinning, inhibit the sycamore anthracnose by speeding up the drying of foliage after rain. Remove fallen leaves and prune infected twigs and branches to reduce the amount of inoculum available to maintain the infection in the tree. Maintain tree vitality to maximize its ability to resist infection and compensate for damage. Irrigate the root zone well during extended dry periods, keep a 2-3 inch layer of composted mulch over as much of the root zone as possible, and maintain adequate soil mineral levels by fertilization as needed. Grow less susceptible species on sites where it is a persistent problem. Several cultivars of London planetree are much less susceptible than American sycamore. Perform chemical control of sycamore anthracnose on susceptible high-value trees by means of injection or spray applications of fungicides. Injection times vary depending on the product used. Apply a spray as buds break open and repeat treatments at labeled intervals until foliage is fully expanded or dry weather prevails.

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