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Sycamore anthracnose

C. E. Swift[1/]

no. 2.930

Quick Facts

- The most serious disease of sycamore trees is anthracnose, *Gnomonia platani*, a fungus.
- The first symptoms appear on young leaves as they unfold; anthracnose often is confused with frost damage.
- Later symptoms are revealed when older leaves show brown, and dead areas occur along the leaf veins; brown areas eventually enlarge to include the whole leaf.
- The ends of twigs may be killed back 8 to 10 inches (20 to 25 centimeters).
- Cankers may develop on the trunk and main branches of the tree.
- Dodine and copper fungicides have been found effective in controlling this disease.

Sycamore anthracnose fungus, *Gnomonia platani*, attacks leaves of sycamore trees early in the spring causing a rapid wilt of newly emerging leaves. This rapid wilting is frequently misidentified as frost damage.

Larger, more developed leaves develop a brown growth along the main veins of the leaf. Infected leaves often curl and eventually fall, littering the ground.

The sycamore leaf is naturally fuzzy. This natural fuzziness should not be confused with infection by anthracnose fungus.

Cankers

Cankers often form on the twigs and branches at the base of blighted leaf clusters. These cankers become active the following spring and produce spores. These spores reinfect the tree and spread the disease to other sycamore trees in the area.

Cankers also develop in larger branches, girdling and eventually killing them. Small black fruiting bodies of the causal fungus appear in the discolored bark of dead twigs and branches.

Repeated annual killing of twigs results in clusters ("witches' brooms") of old dead twigs and live branches.

Weather Influences

Severity of anthracnose is governed by weather. Frequent rains and cool temperatures promote the disease. If the average temperature during the two-week period following emergence of the first leaves is below 55° Fahrenheit (13°C), the shoot-blight phase of the disease will be serious.

Disease intensity decreases as the average temperature increases from 55° to 60°F (13° to 16°C). Little or no anthracnose will occur if average temperatures during this susceptible leaf expansion stage are above 60°F (16°C).

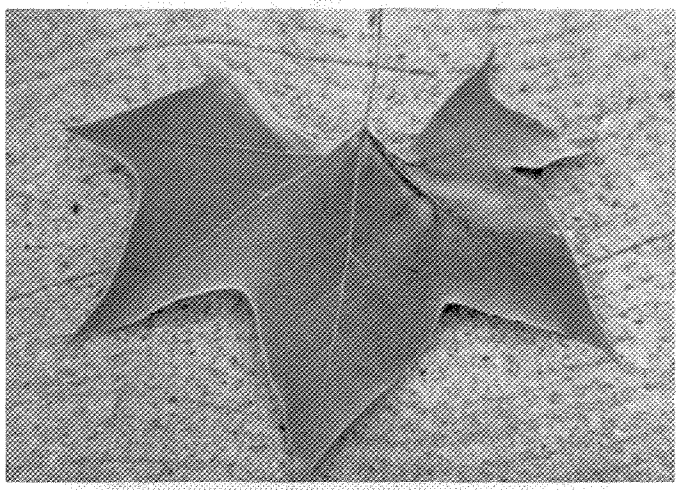

Figure 1: Sycamore anthracnose: older leaf showing brown, dead area along a main leaf vein.

Control

Sprays should be applied as buds begin to swell. During rainy springs, two additional applications are needed—one at bud break, the other 10 to 14 days later.

A second crop of leaves may be produced from mid-June into July after loss of the first set. This second set of leaves should be protected with fungicide sprays if cool, moist conditions exist.

Fungicides registered for the control of anthracnose include dodine and copper fungicides.

[1/] *C. E. Swift, CSU extension agent (horticulture), Tri River Area (10/1/81)*

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To simplify technical terminology, trade names of products and equipment occasionally will be used. No endorsement of products named is intended nor is criticism implied of products not mentioned.

Cultural Practices

All fallen leaves and twigs should be gathered and destroyed. They will produce fungus spores the following spring if not destroyed.

All infected twigs and branches should be pruned and destroyed. Cankers in large limbs should be cut out to reduce a further source of reinfection. The dead cankered tissue should be removed down to healthy wood.

Open areas and dry winters weaken trees, increasing the effects of diseases. To reduce this problem, trees should be watered once a month during snowless winters. Watering should be done when air temperatures are above freezing and early enough during the day to allow water to soak in before nightfall. (For more information on winter watering, see Service in Action sheet 7.211.)

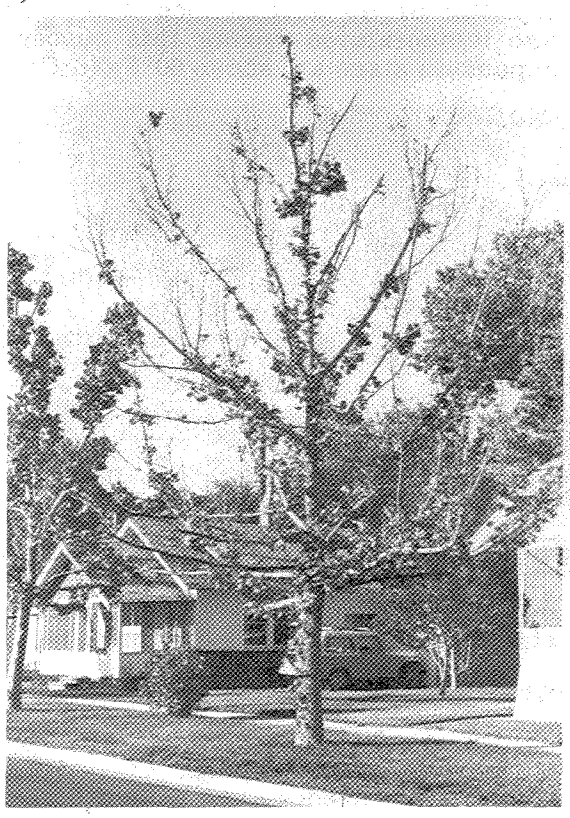

Figure 2: A sycamore tree partially defoliated by anthracnose. Limb dieback is the result of canker development.

Trees suffering from repeated attack of anthracnose, as evidenced by twig dieback and lack of vigor, should be fertilized in the spring.

Resistance

The Oriental plane tree (*Platanus orientalis*) developed a resistance to this disease over centuries of constant association. The London plane tree (*P. x acerifolia*, synonym *P. x hispanica*), a cross between the Oriental plane and the highly susceptible American sycamore (*P. occidentalis*) is partially resistant to the anthracnose disease.

The London plane tree is recommended in lieu of the American sycamore due to this resistance. The Oriental plane, a shorter less graceful tree, while highly resistant to anthracnose, is rarely grown in the United States.

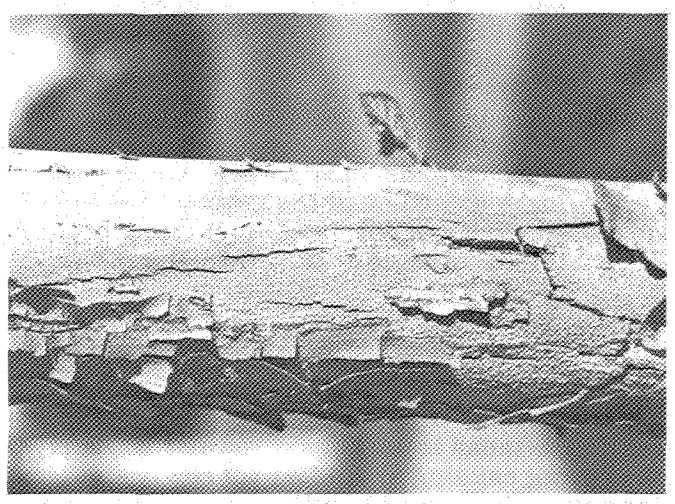

Figure 3: Cankers are dead, rough, brownish areas with small, elongated pimples (fruiting bodies). Cankers eventually girdle the branch, killing the limb.