**Platanus occidentalis: Sycamore**¹

Edward F. Gilman and Dennis G. Watson²

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**Introduction**

Sycamore is a massive tree reaching 75 to 90 feet in height, has a rapid growth rate, and tolerates wet and compacted soil. The white bark peels off in patches and is the most ornamental trait. Pyramidal in youth, it develops a spreading rounded or irregular crown with age, supported by a few very large diameter branches. These branches should be spaced two to four feet apart along the trunk to develop a strong structure. The dominant central leader which typically develops on Sycamore usually assures that the structure of major limbs is desirable with little corrective pruning required other than removing occasionally-occurring, upright, aggressive branches with tight crotches. It is also helpful to thin out the many branches which develop early on the central trunk.

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**General Information**

- **Scientific name:** *Platanus occidentalis*
- **Pronunciation:** PLAT-uh-nus ock-sih-den-TAY-liss
- **Common name(s):** Sycamore, American Planetree
- **Family:** Platanaceae
- **USDA hardiness zones:** 4B through 9A (Fig. 2)
- **Origin:** native to North America
- **Invasive potential:** little invasive potential
- **Uses:** street without sidewalk; screen; shade; parking lot island > 200 sq ft; sidewalk cutout (tree pit); tree lawn > 6 ft wide; urban tolerant; highway median
- **Availability:** not native to North America

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2. Edward F. Gilman, professor, Environmental Horticulture Department; Dennis G. Watson, former associate professor, Agricultural Engineering Department, UF/IFAS Extension, Gainesville, FL 32611.

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Description
Height: 75 to 90 feet
Spread: 50 to 70 feet
Crown uniformity: symmetrical
Crown shape: pyramidal, round, spreading
Crown density: dense
Growth rate: fast
Texture: coarse

Foliage
Leaf arrangement: alternate (Fig. 3)
Leaf type: simple
Leaf margin: lobed, incised
Leaf shape: ovate, star-shaped
Leaf venation: palmate, pinnate
Leaf type and persistence: deciduous
Leaf blade length: 4 to 8 inches, 8 to 12 inches
Leaf color: green
Fall color: yellow
Fall characteristic: not showy

Flower
Flower color: red
Flower characteristics: not showy

Fruit
Fruit shape: round
Fruit length: .5 to 1 inch
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: does not attract wildlife; showy; fruit/leaves a litter problem

Trunk and Branches
Trunk/bark/branches: branches droop; showy; typically one trunk; thorns
Pruning requirement: little required
Breakage: resistant
Current year twig color: brown
Current year twig thickness: medium
Wood specific gravity: 0.49

Culture
Light requirement: full sun
Soil tolerances: clay; sand; loam; alkaline; acidic; extended flooding; well-drained
Drought tolerance: high
Aerosol salt tolerance: moderate

Other
Roots: can form large surface roots
Winter interest: yes
Outstanding tree: no
Ozone sensitivity: sensitive
Verticillium wilt susceptibility: resistant
Pest resistance: sensitive to pests/diseases

Use and Management
They are best suited for soils which are moist and do not dry out. Dry soil can lead to short life for this wet-site-tolerant tree. Sycamore has been cursed by horticulturists and others because it is said to be messy, dropping leaves and small twigs throughout the year, particularly in dry weather. However, the tree grows in places which appear most unsuitable to plant growth, such as in small cut out planting pits in sidewalks and in other areas with low soil oxygen and high pH. Unfortunately, aggressive roots often raise and destroy nearby sidewalks. The dense shade created by the tree’s canopy may interfere with the growth of lawn grasses beneath it. In addition, the leaves which fall to the ground in autumn reportedly release a substance which can kill newly planted grass. Best not planted in yards due to messy habit, it should be saved for the toughest sites and supplied with some irrigation in drought. Allow at least 12 feet (preferably more) of soil between the sidewalk and curb when planting as a street tree.

Sycamore is subject to attacks of anthracnose in wet, cool springs. The disease causes moderate to severe leaf drop and many trees are removed with this disease each year in our major cities. Many trees also defoliate early in the fall due to lace bug infestation. Therefore, do not overplant with Sycamore since they are so prone to problems.

The National Arboretum in 1984 released two selections of *Platanus occidentalis* x *Platanus orientalis* which could prove to be superior to the parents: *Platanus x acerifolia* ‘Columbia’ - upright, orange-grey bark, five-lobed leaves; *Platanus x acerifolia* ‘Liberty’ - upright pyramid, five-lobed leaves, reportedly more resistant to powdery mildew and anthracnose, though not immune.
Propagation is by seed, cultivars by hard or soft wood cuttings.

**Pests**
Aphids will suck the sap from Sycamore. Heavy infestations deposit honeydew on lower leaves and objects beneath the tree, such as cars and sidewalks. These infestations usually do no real harm to the tree but the sticky honeydew and black sooty mold below can be annoying.

Sycamore lace bugs feed on the undersides of the leaves causing a stippled appearance. The insects leave black flecks on the lower leaf surface, and cause premature defoliation in late summer and early fall.

Sycamore is considered resistant to gypsy moth.

**Diseases**
Some fungi cause leaf spots but are usually not serious.

Anthracnose causes early symptoms on young leaves resembling frost injury. When the leaves are almost fully grown light brown areas appear along the veins. Later the infected leaves fall off and trees may be nearly completely defoliated. The disease can cause twig and branch cankers. The trees send out a second crop of leaves but repeated attacks can lower tree vigor. Use a properly labeled fungicide according to the latest recommendations. Fertilization helps trees withstand repeated defoliation.

Powdery mildew causes a white fuzz on the tops of leaves and distorts leaves.

A bacterial leaf scorch can kill the tree in several growing seasons, and can cause significant tree losses. Leaves appear scorched, become crisp, and curl up as they turn a reddish-brown.

Stress cankers form on limbs of trees stressed with drought.