



# *Platanus occidentalis* Sycamore<sup>1</sup>

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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 (Fig. 1). 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.

## 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

**Uses:** large parking lot islands (> 200 square feet in size); wide tree lawns (>6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; shade tree; sidewalk cutout (tree pit); residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common



Figure 1. Mature Sycamore.

**Availability:** generally available in many areas within its hardiness range

## DESCRIPTION

**Height:** 75 to 90 feet

**Spread:** 50 to 70 feet

**Crown uniformity:** symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

**Crown shape:** round; spreading; pyramidal

**Crown density:** dense

**Growth rate:** fast

**Texture:** coarse

1. This document is adapted from Fact Sheet ST-484, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
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Figure 2. Shaded area represents potential planting range.

### Foliage

**Leaf arrangement:** alternate (Fig. 3)

**Leaf type:** simple

**Leaf margin:** lobed; incised

**Leaf shape:** ovate; star-shaped

**Leaf venation:** pinnate; palmate

**Leaf type and persistence:** deciduous

**Leaf blade length:** 8 to 12 inches; 4 to 8 inches

**Leaf color:** green

**Fall color:** yellow

**Fall characteristic:** not showy

### Flower

**Flower color:** red

**Flower characteristics:** inconspicuous and not showy; spring flowering

### Fruit

**Fruit shape:** round

**Fruit length:** .5 to 1 inch

**Fruit covering:** dry or hard

**Fruit color:** brown

**Fruit characteristics:** does not attract wildlife; fruit, twigs, or foliage cause significant litter; persistent on the tree; showy

### Trunk and Branches

**Trunk/bark/branches:** droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; showy trunk; should be grown with a single leader; no thorns

**Pruning requirement:** needs little pruning to develop a strong structure

**Breakage:** resistant

**Current year twig color:** brown

**Current year twig thickness:** medium

**Wood specific gravity:** 0.49

### Culture

**Light requirement:** tree grows in full sun

**Soil tolerances:** clay; loam; sand; acidic; alkaline; extended flooding; well-drained

**Drought tolerance:** high

**Aerosol salt tolerance:** moderate

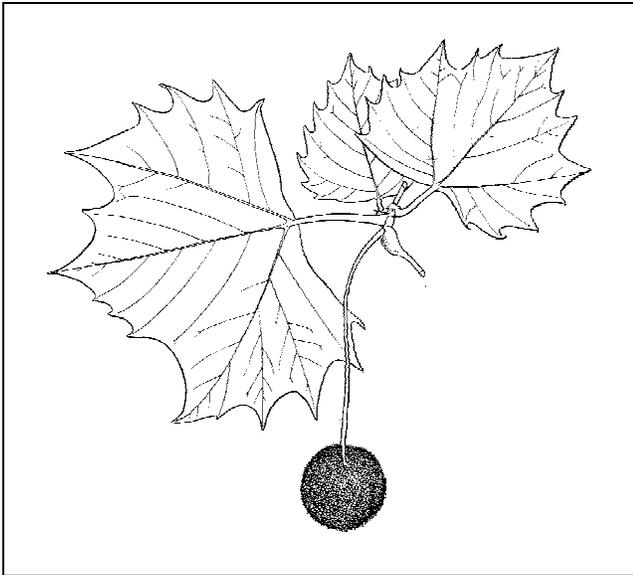


Figure 3. Foliage of Sycamore.

## Other

**Roots:** surface roots can lift sidewalks or interfere with mowing

**Winter interest:** tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

**Outstanding tree:** not particularly outstanding

**Invasive potential:** little, if any, potential at this time

**Ozone sensitivity:** sensitive or moderately tolerant

**Verticillium wilt susceptibility:** not known to be susceptible

**Pest resistance:** very sensitive to one or more pests or diseases which can affect tree health or aesthetics

## 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.