



## *Platanus x acerifolia* 'Liberty' 'Liberty' London Planetree<sup>1</sup>

Edward F. Gilman and Dennis G. Watson<sup>2</sup>

### INTRODUCTION

This is a large tree resulting in a cross between *Platanus orientalis* and *Platanus occidentalis* suitable for use in USDA hardiness zone 4b or warmer (Fig. 1). It is reportedly more resistant to powdery mildew and anthracnose, though not immune. The tree will reach a height of 85 feet and a spread of 70 feet. Pyramidal in youth, it develops a spreading rounded 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 London Planetree usually assures that the structure of major limbs is desirable with little corrective pruning required other than removing occasionally occurring upright branches with tight crotches. It is also helpful to thin out the many branches which develop early on the central trunk. The bark is patchy and very attractive and may be the plants best ornamental attribute. These patches range from creamy-white to olive-green. Large sections of bark may be shed from the tree as it grows older. This is normal and only needs to be disposed of. It does not indicate a problem with the tree.

### GENERAL INFORMATION

**Scientific name:** *Platanus x acerifolia* 'Liberty'

**Pronunciation:** PLAT-uh-nus x  
ass-er-ih-FOLE-ee-uh

**Common name(s):** 'Liberty' London Planetree

**Family:** *Platanaceae*

**USDA hardiness zones:** 5 through 9A (Fig. 2)

**Origin:** not native to North America

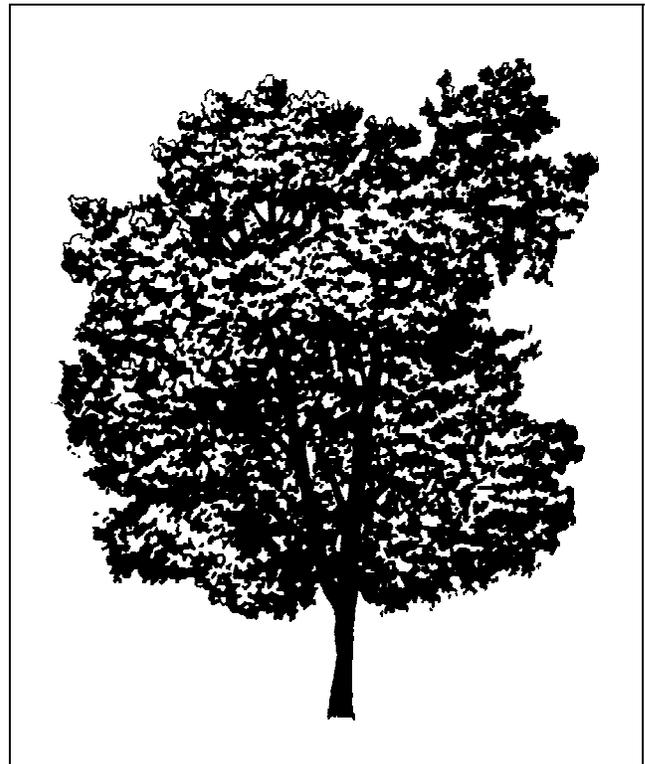


Figure 1. Middle-aged 'Liberty' London Planetree.

**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; shade tree; specimen; 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

1. This document is adapted from Fact Sheet ST-488, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Shaded area represents potential planting range.

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

**Fall characteristic:** not showy

### DESCRIPTION

**Height:** 70 to 85 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

### 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

### 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

### 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

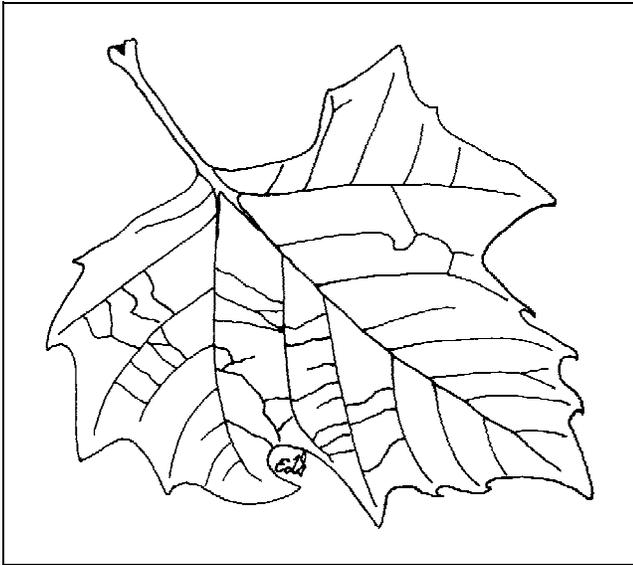


Figure 3. Foliage of 'Liberty' London Planetree.

**Breakage:** resistant

**Current year twig color:** brown

**Current year twig thickness:** medium

### 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

**Soil salt tolerance:** moderate

### 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:** tree has outstanding ornamental features and could be planted more

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

**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

The plant tolerates dry soil (but scorches in dry weather) and city conditions well, adapts to most soils including alkaline and is more resistant (not immune) to the anthracnose that afflicts *Platanus occidentalis*. However, it is susceptible to canker stain, a disease

which has caused its demise in some areas, and is often seen infested with lace bugs which will not kill the tree but causes premature defoliation in late summer. It is also reported to be susceptible to ozone pollution injury in laboratory tests at levels often present during the summer, but damage from air pollution in the landscapes appears minimal. Some people object to the large leaves which often begin falling from the tree in late summer.

Some horticulturists consider this a messy tree due to early leaf drop from drought, bark shedding, and lace bugs. Leaves blow around in the wind during the fall and decompose slowly in the landscape creating a distinctive "crunch" underfoot. Lea, but they make great compost in a compost pile.

Some tree managers limit its use as a street tree due to its large size, susceptibility to canker stain, bacterial leaf scorch, and lace bug injury. But it is a good durable tree for many areas where soil is poor and compacted. It is also somewhat tolerant of coastal conditions, and well-adapted to areas with poor drainage. But it may be best saved for moist sites with plenty of room for root and crown expansion. 'Liberty' is more susceptible to anthracnose than 'Bloodgood' and is somewhat difficult to propagate. 'Columbia' is less hardy than 'Bloodgood' and easier to propagate than 'Liberty'.

The National Arboretum released in 1984 another *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.

Propagation is by seed or hardwood cuttings.

### Pests

Both aphids and lace bugs can infest this tree. Neither, however, will kill it. Aphids will suck the sap from Planetree. Heavy infestations deposit honeydew on lower leaves and objects beneath the tree, such as cars and sidewalks.

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

## **Diseases**

Anthracnose: 'Bloodgood' has been shown to be resistant to anthracnose, but it is not immune. 'Liberty' is more susceptible than 'Bloodgood'. 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 in spring or early summer. The disease can cause twig and branch cankers and a witches-broom appearance at the end of the branches. The trees send out a second crop of leaves but repeated attacks can lower tree vigor. Use a properly labeled fungicide to help control the disease. Fertilization helps trees withstand repeated defoliation.

Canker stain is very serious on London Planetree and can kill the tree, bacterial leaf scorch can devastate London Planetree and some fungi cause leaf spots.