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London Planetree (spp.)

Leaf Color Green
Fall Color Yellow

Leaf Identification

Type: Simple
Arrangement: Alternate
Venations: Palmate
Margins: Incised and lobed
Shapes: Star-shaped
Length: 4in./10cm to 12in./30cm

Fruit Color Brown

The fruit is dry and round.

Environment

This plant tolerates drought, flooding and some salt. This plant will grow in very dry to wet or submerged soil. Suitable soil is well-drained/loamy, sandy or clay. The pH preference is an acidic to alkaline (less than 6.8 to more than 7.7) soil.

Landscape Uses

- Seashore planting
- Street tree

Attributes and Features

- Inconspicuous blooms
- Persistent fruit
- Attractive fruit
- Fruit can be a litter problem

Platanus x acerifolia **London Planetree** **Platanaceae (Plane Tree)**

Type Tree, woody plant

Hardy range 5A to 8A
Height 70' to 90' / 21.40m to 27.40m
Spread 70' to 80' / 21.40m to 24.40m
Growth rate Fast
Form Pyramidal and rounded
Exposure Full sun
Persistence Deciduous

Bloom Color Red
Bloom Time Spring

Native Habitat

Cross between *P. orientalis* and *P. occidentalis*.

Crown, Branch and Twig

This plant is symmetrical with a coarse texture and has a moderately dense crown. This plant's bark is showy. Branches or twigs are of medium thickness.

Branches droop.
This plant typically grows with one trunk.
Little pruning is required.
This plant is moderately flammable.

Culture Notes

This tree is over-planted in many areas and should be used less often. Planetree prefers moist soil but will tolerate drier conditions. In some years leaves scorch when the summer is dry. It is an urban tolerant tree standing typical city conditions nicely. The tree compartmentalizes decay fairly well and resists breakage. Planetrees are among those susceptible to summer branch drop according to surveys in California. Summer branch drop is a phenomena resulting in failure and breakage of large diameter,



live branches typically on calm summer days.

Plants are more resistant (not immune) to the anthracnose that afflicts *Platanus occidentalis*. However, it is very susceptible to canker stain, a disease which has caused its demise in some areas. In most years trees are infested with lace bugs which causes premature defoliation in 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, bark, fruit and twigs which often begin falling from the tree in late summer. 'Yarwood' has almost white bark, and this develops at a very early age. The planetrees are probably best suited for planting along water ways and in parks where quick shade is needed to help stabilize against erosion and to minimize water runoff. This tree is pretty in winter with its exfoliating bark against a bright blue sky. Pollen causes significant allergies in certain people. Contact with the leaves causes skin rashes.

Wood is considered diffuse porous meaning that there is little difference in size of pores between spring and summer wood. Foliage summer nitrogen content on established trees in irrigated landscapes in California ranged from 1.4 - 2.6 percent.

Maintain adequate mulch area

Clear all turf away from beneath the branches and mulch to the drip line, especially on young trees, to reduce competition with turf and weeds. This will allow roots to become well established and keep plants healthier. Prune the tree so trunks and branches will not rub each other. Remove some secondary branches on main branches with included bark. This reduces the likelihood of the main branch splitting from the tree later when it has grown to become an important part of the landscape. Locate the tree properly, taking into account the ultimate size, since the tree looks best if it is not pruned to control size. The tree can enhance any landscape with its delightful spring flush of foliage. It can be the centerpiece of your landscape if properly located.

Tree establishment specifications

Choose good quality trees for planting. The most common cause of young tree failure is planting too deep. In most instances, the point where the top-most root in the root ball originates from the trunk (referred to as the root flare zone or root collar) should be located just above the soil surface. You may have to dig into the root ball to find the root flare. If there is nursery soil over this area, scrape it off. Never place ANY soil over the root ball. The planting hole should be at least twice the width of the root ball, preferably wider because roots grow best in loose soil. In all but exceptional circumstances where the soil is very poor, extensive research clearly shows that there is no need to incorporate any amendments into the backfill soil. Simply use the loosened soil that came out of the planting hole. Simply planting with the topmost portion of the root ball slightly higher than the surrounding soil might still install the tree too deep - be sure to locate the root flare.

Weed suppression during establishment is essential. Apply a 3-inch thick layer of mulch to at least a six-foot diameter circle around the tree. This area should be at least two feet in diameter for each inch of tree trunk diameter and maintained during the establishment period. Apply a thinner layer of mulch directly over the root ball but keep it at least 10 inches from the trunk. This allows rainwater, irrigation and air to easily enter the root ball and keeps the trunk dry. Placing mulch against the trunk and applying too thick a layer above the root ball can kill the plant by oxygen starvation, death of bark, stem and root diseases, prevention of hardening off for winter, vole and other rodent damage to the trunk, keeping soil too wet, or repelling water.

Regular irrigation after planting encourages rapid root growth that is essential for tree establishment. Trees provided with regular irrigation through the first growing season after transplanting require about 3 months (hardiness zones 9-11), 6 months (hardiness zones 7-8), or one year or more (hardiness zones 2-6) per inch of trunk diameter to fully establish roots in the landscape soil. Trees in desert climates may take longer to establish. Trees that are under-irrigated during this establishment period (and most trees are) often require additional time to establish because roots grow more slowly. Be prepared to irrigate through the entire establishment period, especially during periods of drought.

Irrigation also helps maintain and encourage the desirable dominant leader in the tree canopy on large-maturing trees. Instead of a dominant leader, trees that are under-irrigated during the establishment period often develop undesirable, low, co-dominant stems and double leaders that can split from the tree later.

Unlike established plants, which do best with deep, infrequent irrigation, research clearly shows that recently transplanted trees and shrubs establish quickest with light, frequent irrigation. For trees planted in spring or summer, provide one (cooler hardiness zones) to three irrigations (warmer hardiness zones) each week during the first few months after planting. Daily irrigation in the warmest hardiness zones provides the quickest establishment. Following the initial few months of frequent irrigation, provide weekly irrigation until plants are fully established. With every irrigation, apply one (cool climates) to two (warm climates) gallons of water per inch trunk diameter (e.g. 2 to 4 gallons for a 2-inch tree) over the root ball only. In most landscapes that receive more



than 30 inches of rain or irrigation annually, if the mulch area is maintained weed-free, irrigation does not need to be applied outside of the root ball. Never add water if the root ball is saturated.

In cooler hardiness zones, in all but the driest years, irrigation of spring- and summer-planted trees usually can be discontinued once fall color has begun. Irrigation of fall planted trees, however, should be continued until foliage has dropped from the deciduous trees in the region. In warmer climates, irrigate fall-and winter-planted trees as described for the spring- and summer-planted trees.

In drier, desert climates there is benefit to be gained from applying additional irrigation outside of the root ball area. This is best done by making a large diameter berm four to six inches high, then filling it with water so it percolates into the soil. For the first two years, irrigate twice each week through the spring, once per week in summer provided monsoons arrive, and twice each week again in fall if it remains warm. Taper off watering to once or twice each month in winter and resume twice weekly next spring. For years three to five, water twice per month in spring, summer, and fall and once or twice per month in winter. During years five through seven, water once every three weeks in warm weather and once every six weeks in winter. After this, the drought-tolerant desert trees should be able to survive on natural rainfall.

Trees with good, strong structure need no pruning at planting, except to remove broken twigs. Do not remove branches to compensate for root loss - research has shown that this can be detrimental to establishment.

Spring transplanting best

Balled-and-burlapped and bare root trees recover best when transplanted in late winter or early spring in the cooler portions of North America. This usually corresponds to the initiation of root growth.

Trees in one study in NY had trouble recovering from bare-root transplanting.

Pests, Diseases and Damaging Agents

Pests: Sycamore lace bugs feed on the undersides of the leaves causing a stippled appearance and premature defoliation in late summer.

Diseases: Anthracnose can be a serious problem in certain regions of the US. 'Bloodgood', 'Columbia' and 'Liberty' have been shown to be resistant to anthracnose, but it is not immune. 'Yarwood' was found to be susceptible in a California study but is reported resistant in the southeastern US. Canker stain can kill London Planetree. 'Columbia', 'Liberty', and 'Yarwood' resist powdery mildew but 'Bloodgood' is highly susceptible. Bacterial leaf scorch causes leaf scorch, premature browning, and gradual decline of trees. There is often a yellow line or hollow separating the scorched tissue from green tissue. This disease can be devastating, especially if a street or property is planted in a monoculture. Infection probably spreads by root grafts and certainly by leafhoppers, spittlebugs and sharpshooters. Pruning tools are not likely spread the disease. Neither fertilization nor pruning have any effect on treatment of the disease. There may be chemical treatment that can reduce symptoms but nothing will cure an infected tree. Bacterial leaf scorch can kill trees in several years.

Special Notes

This plant has aggressive roots.

