



Quercus robur English Oak¹

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INTRODUCTION

A stately and very unique oak that will reach a height and spread of 50 to 60 feet, English Oak is hardy in USDA hardiness zone 5 and will tolerate a range of soil pH and moisture conditions, including occasionally wet soil and dry clay (Fig. 1). The crown often appears open with large branches dominating the round crown. It is low branching and pyramidal (when young) with a short, grey trunk. The main trunk is normally straight up or slightly bent up through the center of the crown. Branches develop nicely and the tree typically requires little if any pruning to create good form and strong structure. An under-utilized street and shade tree in drier climates.

GENERAL INFORMATION

Scientific name: *Quercus robur*

Pronunciation: KWERK-us ROE-ber

Common name(s): English Oak

Family: *Fagaceae*

USDA hardiness zones: 5 through 8 (Fig. 2)

Origin: not 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; shade tree; residential street tree; no proven urban tolerance

Availability: somewhat available, may have to go out of the region to find the tree

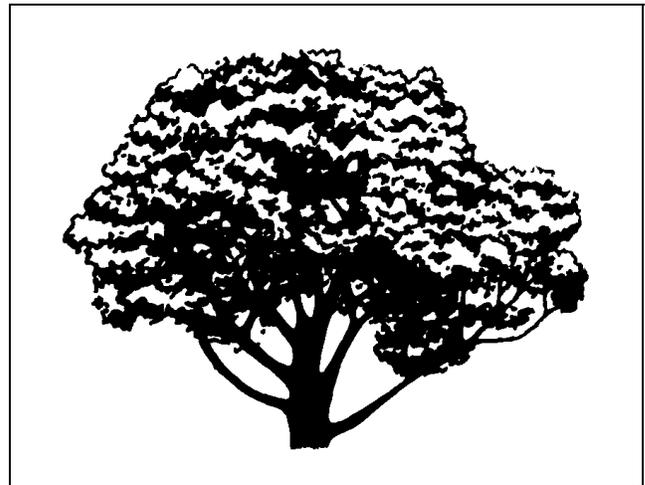


Figure 1. Mature English Oak.

DESCRIPTION

Height: 50 to 60 feet

Spread: 40 to 60 feet

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

Crown shape: oval; round

Crown density: moderate

Growth rate: medium

Texture: coarse

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: lobed; cleft

Leaf shape: oblong; obovate

Leaf venation: pinnate

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Figure 2. Shaded area represents potential planting range.

Leaf type and persistence: deciduous
Leaf blade length: 4 to 8 inches; 2 to 4 inches
Leaf color: green
Fall color: copper
Fall characteristic: showy

Flower

Flower color: brown
Flower characteristics: inconspicuous and not showy

Fruit

Fruit shape: elongated; oval
Fruit length: 1 to 3 inches
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: attracts squirrels and other mammals; inconspicuous and not showy; fruit, twigs, or foliage cause significant litter

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; not particularly showy; 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; reddish
Current year twig thickness: medium

Culture

Light requirement: tree grows in full sun
Soil tolerances: clay; loam; sand; acidic; alkaline; well-drained
Drought tolerance: high
Aerosol salt tolerance: high
Soil salt tolerance: moderate

Other

Roots: surface roots are usually not a problem
Winter interest: no special winter interest
Outstanding tree: not particularly outstanding

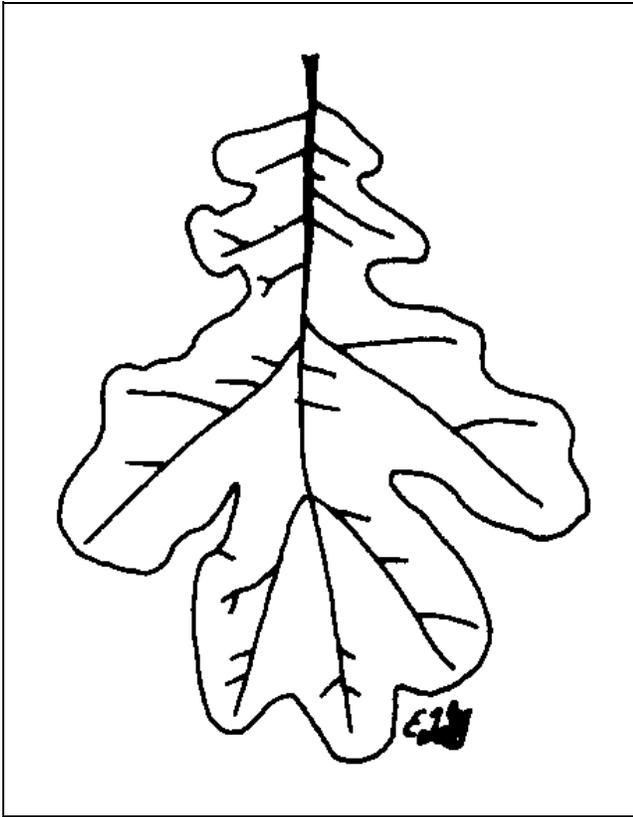


Figure 3. Foliage of English Oak.

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

Ozone sensitivity: 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

Although not widely-used in the United States, the tree appears to be very drought-tolerant and could be used more extensively, particularly in climates such as west Texas with low humidity where powdery mildew may not be a big problem. It also grows well in a wide range of soil from acid to alkaline.

There are a number of cultivars for leaf color and crown form. The most popular is 'Fastigiata' which is distinctly upright or columnar, but varies in spread from 10 to 18 feet due to seedling variation. Leaves turn brown in the fall and persist into the winter. The tree is very tolerant of urban conditions and should be grown and used more often. Powdery mildew is often seen on much of the tree. The cultivar 'Attention' has a narrow crown and may be resistant to powdery mildew.

Generally pest free although mites can be seen on some trees. Powdery mildew can be a serious problem on English Oak in humid areas.

Pests

No pests are normally serious.

Galls cause homeowners much concern. There are many types and galls can be on the leaves or twigs. Most galls are harmless so chemical controls are not suggested.

Scales of several types can usually be controlled with sprays of horticultural oil.

Aphids cause distorted growth and deposits of honeydew on lower leaves. On large trees, naturally-occurring predatory insects will often bring the aphid population under control.

Boring insects are most likely to attack weakened or stressed trees. Newly planted young trees may also be attacked. Keep trees as healthy as possible with regular fertilization and water during dry weather.

Many caterpillars including gypsy moth feed on Oak. Large trees tolerate some feeding injury without harm. Trees repeatedly attacked, or having some other problem, may need spraying. Tent caterpillars form nests in trees then eat the foliage. The nests can be pruned out when small. Where they occur, gypsy moth caterpillars are extremely destructive on Oaks. Fall cankerworm has been a problem in some years.

Twig pruner causes twigs to drop off in the summer. The larvae ride the twig to the ground. Rake up and destroy fallen twigs.

Spider mite infested leaves first look dusty then yellowed, particularly on English Oak.

Lace bugs suck juices from leaves causing them to look dusty or whitish gray.

Leaf miners cause brown areas in leaves. To identify leaf miner injury tear the leaf in two across the injury. If the injury is due to leaf miner, upper and lower leaf surfaces are separate and black insect excrement will be seen.

Diseases

Powdery mildew coats leaves with white powdery growth and can be a big problem on English Oak.

Anthracnose may be a serious problem in wet weather. Infected leaves have dead areas following the midrib or larger veins. These light brown blotches may run together and, in severe cases, cause leaf drop. Trees of low vigor, repeatedly defoliated, may die. Trees defoliated several years in a row may need spraying, to allow the tree to recover.

Canker diseases attack the trunk and branches. Keep trees healthy by regular fertilization. Prune out diseased or dead branches.

Leaf blister symptoms are round raised areas on the upper leaf surfaces causing depressions of the same shape and size on lower leaf surfaces. Infected areas are yellowish-white to yellowish-brown. The disease is most serious in wet seasons in the spring but it does not need to be treated.

A large number of fungi cause leaf spots but are usually not serious. Rake up and dispose of infected leaves.

Shoestring root rot attacks the roots and once inside moves upward, killing the cambium. The leaves on infected trees are small, pale or yellowed and fall early. There is no practical control. Healthy trees may be more resistant than trees of low vigor.