



## *Quercus shumardii* Shumard Oak<sup>1</sup>

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

### INTRODUCTION

Growing 80 feet tall with a 50 to 60-foot spread, Shumard Oak forms a large, stately tree with a narrow, rather open, rounded canopy, somewhat reminiscent of Red Oak (Fig. 1). The crown spreads with age becoming round at maturity. The four to eight-inch-long deciduous leaves are deeply-lobed (more so than *Quercus rubra*) and have bristles on the tips of some lobes. A lovely dark green during most of the year, Shumard Oak puts on a vivid display of brilliant red to red-orange fall and winter foliage, providing a dramatic landscape statement. Fall and winter coloration varies from year to year in USDA hardiness zones 8 and 9. During the winter the bare tree provides interesting branching patterns. The 1.5-inch-wide acorns are surrounded by a shallow, enclosing cup and are popular with wildlife.

### GENERAL INFORMATION

**Scientific name:** *Quercus shumardii*

**Pronunciation:** KWERK-us shoo-MAR-dee-eye

**Common name(s):** Shumard Oak

**Family:** *Fagaceae*

**USDA hardiness zones:** 5B through 9 (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; reclamation plant; shade tree; specimen; residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

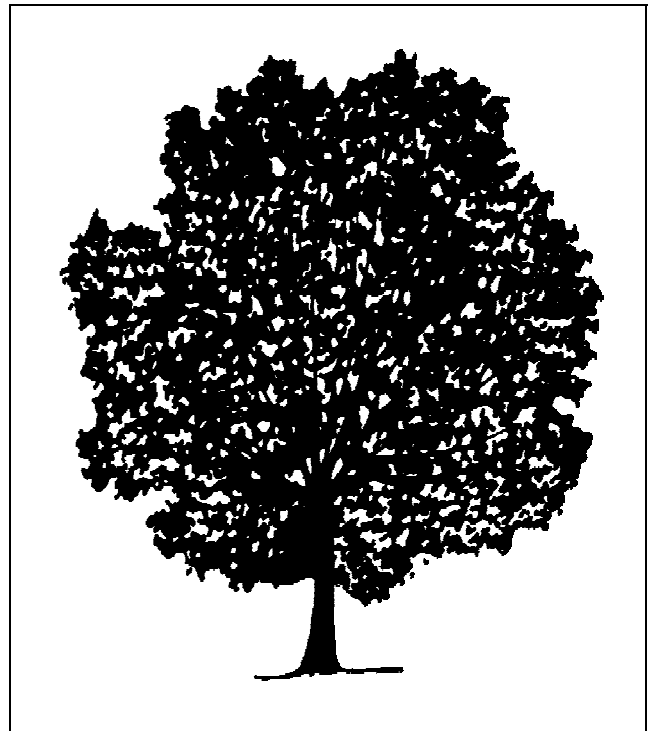


Figure 1. Middle-aged Shumard Oak.

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

### DESCRIPTION

**Height:** 55 to 80 feet

**Spread:** 40 to 50 feet

**Crown uniformity:** irregular outline or silhouette

**Crown shape:** oval; round

**Crown density:** open

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Figure 2. Shaded area represents potential planting range.

**Growth rate:** fast

**Texture:** coarse

### Foliage

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

**Leaf type:** simple

**Leaf margin:** lobed; parted

**Leaf shape:** elliptic (oval); obovate; ovate

**Leaf venation:** pinnate

**Leaf type and persistence:** deciduous

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

**Leaf color:** green

**Fall color:** orange; red

**Fall characteristic:** showy

### Flower

**Flower color:** brown

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

### Fruit

**Fruit shape:** oval; round

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

**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

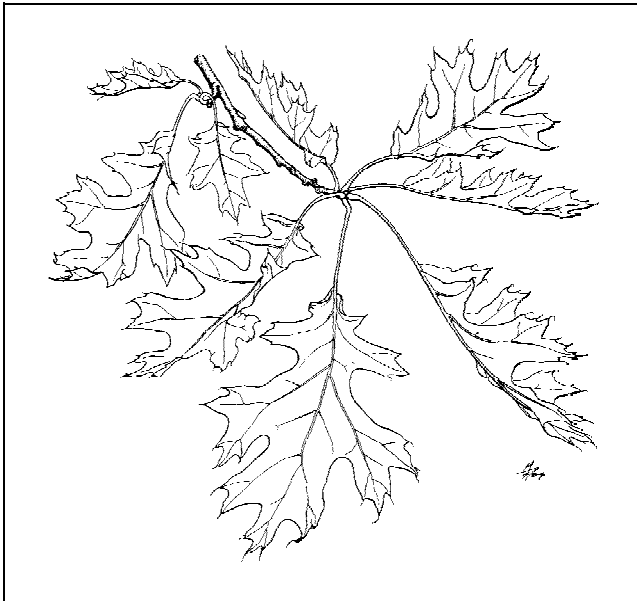
**Trunk/bark/branches:** bark is thin and easily damaged from mechanical impact; grow mostly upright and will not droop; not particularly showy; should be grown with a single leader; no thorns

**Pruning requirement:** requires pruning to develop strong structure

**Breakage:** resistant

**Current year twig color:** brown

**Current year twig thickness:** medium



**Figure 3.** Foliage of Shumard Oak.

## Culture

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

**Soil tolerances:** clay; loam; sand; acidic; occasionally wet; alkaline; well-drained

**Drought tolerance:** high

**Aerosol salt tolerance:** moderate

## Other

**Roots:** surface roots are usually not a problem

**Winter interest:** no special winter interest

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

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

**Ozone sensitivity:** tolerant

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

**Pest resistance:** long-term health usually not affected by pests

## USE AND MANAGEMENT

Shumard Oak has become popular in some areas but is utilized sparingly in others. Deserving of wider use in most parts of its range due to urban adaptability. Planted on 30 to 40-foot-centers, it will form a closed canopy over a two-lane street in 20 to 25-years with good growing conditions.

It makes a good street tree after some initial pruning to develop a central leader. Several leaders often develop in the nursery and when they are removed to develop one leader, the tree often looks

very open and bare. Although this may be somewhat undesirable from an aesthetic standpoint, it creates a stronger tree which will provide a much longer service life than a multiple-leadered tree. The tree "fills in" as it grows older, forming a coarsely-branched, open interior. Once trained into a central leader this tree will require less pruning than Live Oak or Pin Oak, and may, therefore, require less maintenance as an urban tree. But it will not as long as Live Oak. Branches are more upright and will not grow down toward the ground as will Live and Laurel Oak. Like other Oaks, care must be taken to develop a strong branch structure early in the life of the tree. Be sure that main branches remain less than about half the diameter of the trunk to ensure proper development and longevity in the landscape. Be sure that these are removed periodically so that only one trunk remains.

A native of the bottomlands of the southeastern United States, Shumard Oak grows well in full sun on a wide variety of soils. Although it prefers moist, rich soil where it will grow rapidly, it will tolerate drier locations. Shumard Oak is highly stress-tolerant and will endure urban conditions quite well, including high pH soil. It appears to be well-adapted to clay soil, even those which are poorly drained.

Propagation is by seed.

Mites and occasionally root rot on wet soil are the major pests. Oak wilt will kill Shumard Oak and is of particular concern in Texas.

## Pests

Usually no pests are 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. Borers are also common in some nurseries. Newly planted young trees may also be

attacked. Keep trees as healthy as possible with regular fertilization and water during dry weather.

Many caterpillars 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.

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

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**

Usually no diseases are serious.

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.

Powdery mildew coats leaves with white powdery growth.

Oak wilt is a fatal disease beginning with a slight crinkling and paling of the leaves. This is followed by leaf wilting and browning of leaf margins then working inward. The symptoms move down branches toward the center of the tree. Cut down and destroy infected trees. The disease may be spread by insects or pruning tools. The disease appears to infect Red, Black and Live Oaks particularly. Avoid pruning in

late spring and early summer in areas where Oak wilt is present. Pruning in the dormant season or in summer is best.

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.