Quercus texana: Texas Red Oak

Edward F. Gilman and Dennis G. Watson

Introduction
Growing up to 80 feet tall with a 50- to 60-foot spread, Texas red oak forms a stately tree with a narrow, rather dense rounded canopy. This oak is similar to the Shumard oak. The crown spreads with age becoming round at maturity. The 4- to eight-inch dark green during most of the year, Texas red 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 texana
Pronunciation: KWERK-us teck-SAY-nuh
Common name(s): Texas red oak, Texas oak
Family: Fagaceae
USDA hardiness zones: 5B through 9A (Fig. 2)
Origin: native to North America
Invasive potential: little invasive potential
Uses: reclamation; street without sidewalk; shade; specimen; parking lot island > 200 sq ft; tree lawn > 6 ft wide; urban tolerant; highway median
Availability: somewhat available, may have to go out of the region to find the tree

Description
Height: 30 to 75 feet

Figure 1. Middle-aged Quercus texana: Texas red oak
Credits: Ed Gilman, UF/IFAS

Figure 2. Range

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Spread: 25 to 50 feet  
Crown uniformity: symmetrical  
Crown shape: round, oval  
Crown density: moderate  
Growth rate: fast  
Texture: coarse

**Foliage**
- Leaf arrangement: alternate (Fig. 3)  
- Leaf type: simple  
- Leaf margin: parted, lobed  
- Leaf shape: obovate, elliptic (oval)  
- Leaf venation: pinnate  
- Leaf type and persistence: deciduous  
- Leaf blade length: 4 to 8 inches  
- Leaf color: green  
- Fall color: red, orange  
- Fall characteristic: showy

**Culture**
- Light requirement: full sun  
- Soil tolerances: clay; sand; loam; alkaline; acidic; well-drained  
- Drought tolerance: high  
- Aerosol salt tolerance: none

**Other**
- Roots: not a problem  
- Winter interest: yes  
- Outstanding tree: yes  
- Ozone sensitivity: unknown  
- Verticillium wilt susceptibility: resistant  
- Pest resistance: resistant to pests/diseases

**Use and Management**
Texas red oak has become popular in some areas but is utilized sparingly in others. It deserves 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 live as long as live oak. Branches are more upright and will not grow down toward the ground as will live, water, 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 Central Texas on alkaline and slightly acidic soil, Texas red 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. It 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.
Mites and occasionally root rot on prolonged wet soil are the major pests. Oak wilt will kill Texas red 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. 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.

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.