Quercus falcata: Southern Red Oak

Edward F. Gilman and Dennis G. Watson

Introduction

Southern red oak is an excellent large, durable shade tree which reaches 60 to 80 feet in height with a large, rounded canopy when it is open-grown. The deciduous, shiny green leaves are 5- to 9-inches-long by 4- to 5-inches-wide, with the terminal lobe much longer and narrower than the others. Leaves fall brown over an extended period of time in fall and winter. Some defoliation is noted during the summer in droughty years, but this is probably a drought-avoidance mechanism. No permanent damage appears to come from this. The dark brown to black bark is ridged and furrowed and resembles cherry bark, to some extent. The half-inch-diameter acorns are popular with wildlife. The trunk normally grows straight with major branches well-spaced and strongly attached to the tree.

General Information

Scientific name: Quercus falcata
Pronunciation: KWERK-us fal-KAY-tuh
Common name(s): Southern red oak, spanish oak
Family: Fagaceae
USDA hardiness zones: 7A through 9B (Fig. 2)
Origin: native to North America
Invasive potential: little invasive potential
Uses: specimen; shade; reclamation; street without sidewalk
Availability: somewhat available, may have to go out of the region to find the tree

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

Description

Height: 60 to 80 feet
Spread: 60 to 70 feet
Crown uniformity: irregular
Crown shape: round, oval
Crown density: moderate
Growth rate: moderate
Texture: coarse


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### Foliage
- **Leaf arrangement:** alternate (Fig. 3)
- **Leaf type:** simple
- **Leaf margin:** parted, lobed
- **Leaf shape:** elliptic (oval), obovate, ovate
- **Leaf venation:** pinnate
- **Leaf type and persistence:** deciduous
- **Leaf blade length:** 4 to 8 inches, 8 to 12 inches
- **Leaf color:** green
- **Fall color:** copper
- **Fall characteristic:** not showy

### Flower
- **Flower color:** brown
- **Flower characteristics:** not showy

### Fruit
- **Fruit shape:** round, oval
- **Fruit length:** less than .5 inch, .5 to 1 inch
- **Fruit covering:** dry or hard
- **Fruit color:** brown
- **Fruit characteristics:** attracts squirrels/mammals; not showy; fruit/leaves a litter problem

### Trunk and Branches
- **Trunk/bark/branches:** branches don’t droop; not showy; typically one trunk; thorns
- **Pruning requirement:** needed for strong structure
- **Breakage:** resistant
- **Current year twig color:** brown, reddish
- **Current year twig thickness:** medium
- **Wood specific gravity:** 0.59

### Culture
- **Light requirement:** full sun
- **Soil tolerances:** clay; sand; loam; acidic; occasionally wet; well-drained
- **Drought tolerance:** high
- **Aerosol salt tolerance:** moderate

### Other
- **Roots:** not a problem
- **Winter interest:** no
- **Outstanding tree:** yes
- **Ozone sensitivity:** unknown
- **Verticillium wilt susceptibility:** resistant
- **Pest resistance:** resistant to pests/diseases

### Use and Management
Naturally found on poor upland soils, southern red oak should be grown in full sun on well-drained soil, acid, sandy, or loam (not clay). It is common on poor-quality, sandy ridges. It is well suited for planting in areas such as along road sides where there is little maintenance after planting. The wood is used for furniture but does not have the quality of *Quercus rubra*.

Variety *pagodifolia*, cherrybark oak, is adaptable, growing along stream banks and ridge tops throughout its range. It may be more commonly available than the species and may be referred to as *Quercus pagodifolia* in some nurseries. This plant may also be referred to as *Quercus pagoda*.

Propagation is by seed.

### Pests and Diseases
There is a large number of potential problems. Except for oak wilt though, usually no pests or diseases of major concern. Caterpillars can defoliate trees. Fall cankerworm has been a problem in some years.