

# *Quercus laurifolia*: Diamond Leaf Oak<sup>1</sup>

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## Introduction

A large, fast-growing, shade tree, Laurel Oak is native to the southeastern United States and noted for its dense, oval canopy. Some botanists separate this species from *Q. hemisphaerica*, others lump them together - take your pick. *Quercus laurifolia* has been described as tolerant of wet sites. *Quercus hemisphaerica* is more of an upland species. Laurel Oaks are taller than they are broad, eventually reaching 60 feet or more in height with a 40 to 60-foot spread. The trunk can be up to four feet in diameter and flares out at the base lifting sidewalks and curbing if planted in tree lawns less than eight feet wide. Trees are either deciduous in the north or semi-evergreen in the south. The smooth, narrow leaves are shiny on both sides and the round acorns are set 1/4 or less of their height into thin, saucer-like cups. They normally drop brown in the fall and winter.

## General Information

**Scientific name:** *Quercus laurifolia*

**Pronunciation:** KWERK-us lar-ih-FOLE-ee-uh

**Common name(s):** Diamond Leaf Oak

**Family:** *Fagaceae*

**USDA hardiness zones:** 6B through 10A (Fig. 2)

**Origin:** native to North America

**Invasive potential:** little invasive potential

**Uses:** reclamation; shade; parking lot island > 200 sq ft; tree lawn > 6 ft wide; highway median

**Availability:** not native to North America

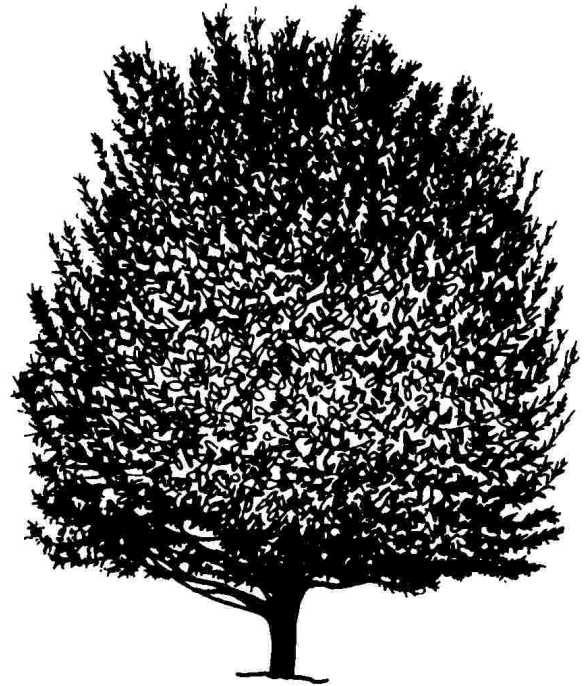


Figure 1. Middle-aged *Quercus laurifolia*: Diamond Leaf Oak

## Description

**Height:** 60 to 70 feet

**Spread:** 35 to 45 feet

**Crown uniformity:** symmetrical

**Crown shape:** round, oval

**Crown density:** dense

**Growth rate:** fast

**Texture:** fine

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Figure 2. Range

## Foliage

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

**Leaf type:** simple

**Leaf margin:** parted, entire

**Leaf shape:** oblanceolate, elliptic (oval), obovate, rhomboid

**Leaf venation:** pinnate

**Leaf type and persistence:** semi-evergreen, deciduous

**Leaf blade length:** 2 to 4 inches

**Leaf color:** green

**Fall color:** yellow

**Fall characteristic:** not showy

## Flower

**Flower color:** brown

**Flower characteristics:** not showy

## Fruit

**Fruit shape:** oval, round

**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 droop; not showy; typically one trunk; thorns

**Pruning requirement:** needed for strong structure

**Breakage:** susceptible to breakage

**Current year twig color:** gray, brown

**Current year twig thickness:** thin

**Wood specific gravity:** 0.63

## Culture

**Light requirement:** full sun, partial sun or partial shade

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

**Drought tolerance:** moderate

**Aerosol salt tolerance:** low

## Other

**Roots:** not a problem

**Winter interest:** no

**Outstanding tree:** no

**Ozone sensitivity:** unknown

**Verticillium wilt susceptibility:** resistant

**Pest resistance:** resistant to pests/diseases

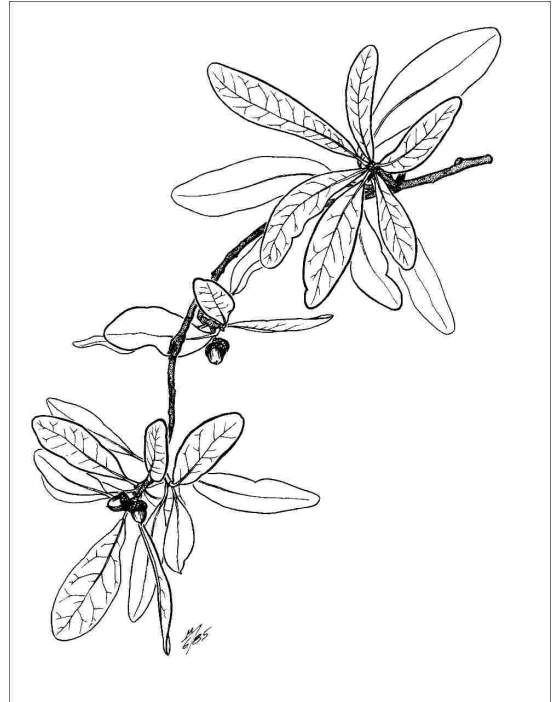


Figure 3. Foliage

## Use and Management

Laurel Oaks have a life span of 50 to 70 years. Tree trunks and large branches often hollow from decay and wood rot. The smallest trunk injury or improper pruning cut can result in columns of decay inside the trunk which are 10, 20 or more feet long. Live Oak, and other Oaks are more resistant to decay and live longer. Like other Oaks, care must be taken to develop a strong branch structure with major branches well-spaced along the trunk early in the life of the tree. It grows well as a street tree and will serve the community well, but hollows with age as it approaches 50 years old. There are more durable street and parking lot trees including Live, Shumard, Pin, Southern Red, Northern Red, Bluff and Bur Oak.

Trees should be pruned to one central trunk with major branches trimmed to keep branch diameter less than half

the trunk diameter. Major branches should also be spaced two to three feet apart along the trunk. Avoid removing large-diameter branches by pruning regularly so only small branches are removed. This strategy may increase the life span of Laurel Oak.

Laurel Oaks will grow easily in full sun or partial shade and are quite tolerant of a wide range of soils, from moist and rich to dry and sandy. Trees growing under drier conditions will grow more slowly and, it is thought, will have stronger wood which is less susceptible to breakage. In soils with pH above 7, chlorosis often appears.

Propagation is by seed or hardwood cuttings. Propagation of *Quercus* by seed is the most common, but horticulturists are developing techniques for vegetative propagation.

Some nurseries market 'Darlington' which supposedly has a more compact growing habit. At least some horticulturists doubt the status of this tree as a true cultivar.

## Pests

Usually none of this tree's pests are serious.

Mites can cause leaf yellowing, but control is usually not needed. Gall wasp can be devastating to many trees in an area of infestation.

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. 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. They are usually only a problem in nurseries.

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 none serious.

Root rot and leaf blister is common in wet years but control is usually not warranted. 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.

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

A large number of fungi cause leaf spots but are usually not serious. Rake up and dispose of infected leaves. *Tubakia* spp. leafspot is very troublesome in nurseries growing Laurel Oak in containers.

Powdery mildew coats leaves with white powdery growth.

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.

Chlorosis due to iron-deficiency occurs on high pH soil.