



Quercus prinus Chestnut Oak¹

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INTRODUCTION

Chestnut Oak is a deciduous, native tree which reaches 50 to 60 feet in height with an equal spread when grown in the open (Fig. 1). It is capable of reaching to 100 feet in the woods. The glossy, green, four to eight-inch-long by 1.5 to 3-inch-wide leaves turn to yellow-brown or red-brown in fall before dropping. The large, 1.5-inch-long acorns which fall in October are particularly sweet-tasting, and are relished by many forms of wildlife, such as the grey squirrel, black bear, and white-tailed deer. The attractive dark brown to black bark is deeply ridged and furrowed.

GENERAL INFORMATION

Scientific name: *Quercus prinus*

Pronunciation: KWERK-us PRY-nus

Common name(s): Chestnut Oak, Rock Oak, Basket Oak

Family: *Fagaceae*

USDA hardiness zones: 5 through 9A (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; shade tree; residential street tree; no proven urban tolerance

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

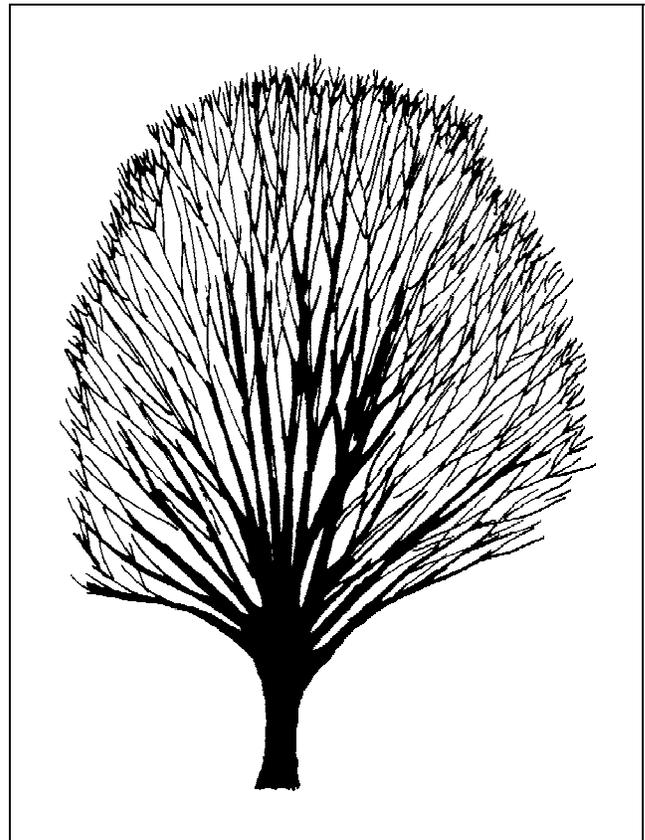


Figure 1. Middle-aged Chestnut Oak.

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: round

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Figure 2. Shaded area represents potential planting range.

Crown density: dense

Growth rate: medium

Texture: coarse

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: crenate; undulate

Leaf shape: oblong; obovate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 4 to 8 inches

Leaf color: green

Fall color: copper; red; yellow

Fall characteristic: showy

Flower

Flower color: brown

Flower characteristics: inconspicuous and not showy; spring flowering

Fruit

Fruit shape: oval; round

Fruit length: 1 to 3 inches; .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: grow mostly upright and will not droop; showy trunk; 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; gray

Current year twig thickness: medium

Wood specific gravity: 0.66

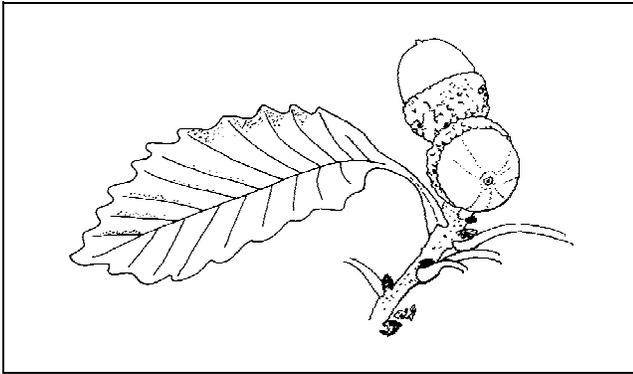


Figure 3. Foliage of Chestnut Oak.

Culture

Light requirement: tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; well-drained

Drought tolerance: high

Other

Roots: surface roots are usually not a problem

Winter interest: no special winter interest

Outstanding tree: not particularly outstanding

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

Verticillium wilt susceptibility: not known to be susceptible

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

USE AND MANAGEMENT

Chestnut Oak has been used for planting in parking lots and could be tested and used more for planting along streets and as a shade tree. The crown is dominated by one central trunk with lateral branches developing good attachments with little pruning. Be sure to allow plenty of room for trunk expansion and root flare since this Oak grows quite large.

Chestnut Oak is naturally found on poor, dry, sandy or rocky landscapes. Well adapted to planting along highway roadsides or in other areas where there will be no maintenance but not suited for clay soil or poorly-drained sites. The wood is very durable and hard.

Quercus michauxii (Swamp Chestnut Oak), a closely related species, is lumped together by some botanists with *Quercus prinus* although they look quite different. Swamp Chestnut Oak grows taller, with platey, light grey bark and has similar cultural requirements.

Propagation is by seed.

Pests and Diseases

No pests or diseases of major concern other than gypsy moth. Variable Oak and Oak slug caterpillars can infest the tree although natural enemies usually provide control. Fall cankerworm has been a problem in some years. There are many other potential problems, although none serious.

Chestnut Oak is susceptible to oak wilt.