

# *Quercus muehlenbergii*: Chinkapin Oak<sup>1</sup>

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## Introduction

Chinkapin Oak is seen at 70 to 90 feet in height when found in the wild but is more often seen at 40 to 50 feet in height with an equal or greater spread when grown in cultivation. It grows at a moderate rate when young but slows considerably with age, eventually developing into a broad, rounded canopy with strong branches. Young trees often exhibit a straight central leader with numerous branches originating at the same node. The yellow/green, deciduous, lobed leaves turn shades of red, yellow, orange and brown before dropping in fall. Veins are distinctly prominent on the undersides of the coarse-textured leaves. The acorns which are produced are edible.

## General Information

**Scientific name:** *Quercus muehlenbergii*

**Pronunciation:** KWERK-us mew-len-BER-jee-eye

**Common name(s):** Chinkapin Oak, Chestnut Oak

**Family:** *Fagaceae*

**USDA hardiness zones:** 3A through 8B (Fig. 2)

**Origin:** native to North America

**Invasive potential:** little invasive potential

**Uses:** reclamation; street without sidewalk; shade; highway median; parking lot island > 200 sq ft; tree lawn > 6 ft wide

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

## Description

**Height:** 40 to 60 feet

**Spread:** 50 to 60 feet



Figure 1. Middle-aged *Quercus muehlenbergii*: Chinkapin Oak

**Crown uniformity:** symmetrical

**Crown shape:** spreading, round

**Crown density:** moderate

**Growth rate:** fast

**Texture:** medium

## Foliage

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

**Leaf type:** simple

**Leaf margin:** dentate, undulate

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Figure 2. Range

**Leaf shape:** elliptic (oval), oblong, lanceolate, obovate

**Leaf venation:** pinnate

**Leaf type and persistence:** deciduous

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

**Leaf color:** green

**Fall color:** yellow

**Fall characteristic:** showy

## Flower

**Flower color:** brown

**Flower characteristics:** not showy

## Fruit

**Fruit shape:** oval, round

**Fruit length:** .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:** little required

**Breakage:** resistant

**Current year twig color:** brown

**Current year twig thickness:** thin, medium

**Wood specific gravity:** unknown

## Culture

**Light requirement:** full sun

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

**Drought tolerance:** high

**Aerosol salt tolerance:** moderate

## Other

**Roots:** not a problem

**Winter interest:** no

**Outstanding tree:** no

**Ozone sensitivity:** unknown

**Verticillium wilt susceptibility:** resistant

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

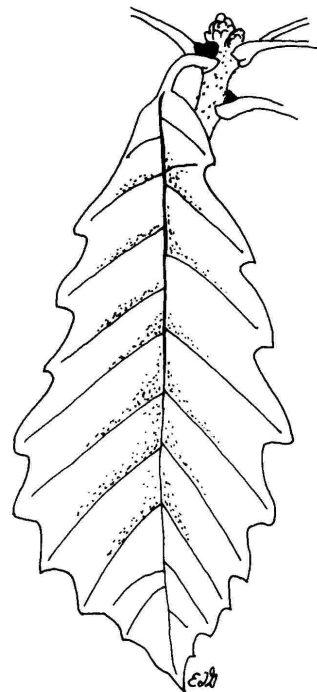


Figure 3. Foliage

## Use and Management

Small specimens are often grown with an upright, oval habit. Older trees develop a more open, rounded form. This oak should be grown with a single trunk and widely-spaced branches to mimic its growth habit in the wild. The first permanent branch can be located three to five feet from the ground if the tree will be planted in an open lawn area and allowed to develop a wide crown. For those planted as street trees or in areas requiring clearance for vehicles or pedestrians, the first permanent branch should be higher on the trunk.

Chinkapin Oak should be grown in full sun on well-drained soil. It reaches its greatest size on loose, bottomland soils and is well adapted to alkaline soils. This is an adaptable oak which has been planted often in the central part of the country where soils are often clayey and alkaline. It will grow quite nicely in other areas of the country as well.

Propagation is by seed but plants have been considered difficult to transplant. There are a number of root-promoting techniques developed for nursery production which should improve the branching of the root system, and this should improve the transplantability of this oak.

## **Pests and Diseases**

No pests or diseases of major concern.