

## Community Tree Profile:

# Chinkapin Oak

(*Quercus muehlenbergii*)

by Laura G. Jull, Ph.D.  
Dept. of Horticulture  
University of Wisconsin–Madison

**Native To:** Vermont to Virginia, west to Nebraska, Mexico and Texas. Native to Wisconsin.

**Mature Height:** 40' to 50' under landscape conditions, but can grow up to 70' tall in the wild.

**Spread:** 50' to 60'

**Form:** Weakly rounded when young, becoming rounded and open with age. Branches grow mainly upright or horizontal, with medium to coarse texture. Often has a straight, central leader.

**Growth Rate:** Moderate when young, slowing with age.

**Foliage:** Oblong, simple leaves with coarse, round-toothed margins, tapering at both ends, reaching 4" to 6½" long. Leaves resemble a chestnut leaf and are dark yellow-green and shiny above with whitish, finely matted pubescence underneath.

**Fall Color:** Yellow to orangish-brown.

**Flowers:** Males in yellow, drooping catkins; females are inconspicuous, borne separately on the same tree in spring.

**Fruit:** ¾" - to 1"-long, ovoid acorn; enclosed about one-third to halfway by a thin cap. Cap has small, depressed, woolly scales. Acorns mature the first year.

**Bark:** Ashy-gray, rough and flaky when mature with thin, narrow scales.

**Site Requirements:** Chinkapin oak is a large, wide-spreading tree that is somewhat difficult to transplant. Transplant from a field nursery in spring for best survival. Prefers a rich, moist, well-drained soil but is naturally found on dry, limestone outcrops.

Tolerant to dry, alkaline soils.

**Hardiness Zone:** 4b to 7

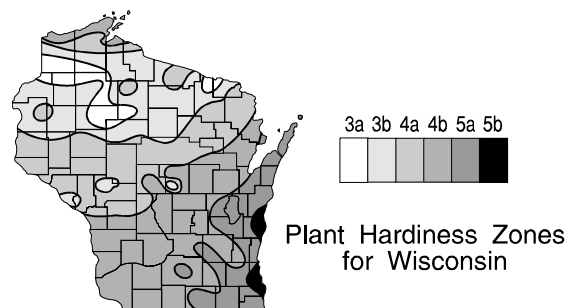
**Insect & Disease Problems:** Diseases and insects are seldom problems with chinkapin oak which is in the white oak group. It can develop oak wilt, but is less susceptible than trees in the red oak group. Anthracnose, gypsy moth and two-lined chestnut borer rarely occur, but can on stressed trees.

**Suggested Applications:** Excellent tree for large areas. Chinkapin oak makes a wonderful tree for park



Photo by Dr. Laura Jull, UW–Madison

Chinkapin Oak



Plant Hardiness Zones for Wisconsin

\* Urban tree size and growth rate vary considerably and are strongly controlled by site conditions.

settings. It may be used as a street tree as it is urban tolerant, but requires a large terrace to give it plenty of room for root and stem growth.

**Limitations:** Difficult to transplant and transplant shock may last several years. Not as readily available commercially as other oaks. As with other oaks, it is sensitive to construction damage. To insure proper cold hardiness, select acorns from northern provenances. Acorns in fall are great for wildlife, but may be a litter nuisance.

**Comments:** This tree is highly underused in our landscapes. It can naturally tolerate dry, high-pH soils without going chlorotic. Its unique leaves and large crown with strong branches provide for excellent shade. Chinkapin oak has very few pest problems and is urban tolerant.

**Common Cultivars:** None available.

Photo by Dr. Ed Hasselkus, UW–Madison




Leaves of Chinkapin oak.

continued on next page

## **Tree Profile:** *continued from previous page*

### **References:**

- Manual of Woody Landscape Plants:** Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, 1998, by Michael A. Dirr, Stipes Publishing, Champaign, IL.
- Landscape Plants for Eastern North America,** 2nd ed., 1997, by Harrison L. Flint, John Wiley and Sons, Inc., New York.
- Trees of the Northern United States and Canada,** 1995, by John L. Farrar, Iowa State Univ. Press, Ames, IA.
- Trees of the Central Hardwood Forests of North America: An Identification and Cultivation Guide,** 1998, by Donald J. Leopold, William C. McComb and Robert N. Muller, Timber Press, Portland, OR.
- Trees for Urban and Suburban Landscapes,** 1997, by Edward F. Gilman, Delmar Publishers, Albany, NY. 
-