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Large Tree (over 40')  
Deciduous

Native  
Map #63

## White Oak

(*Quercus alba*)  
Family: *Fagaceae*

**Leaves:** simple, 5-9 lobes, margins smooth, indentations are deep and the lobes rounded; fall-brown to wine colored.

**Buds:** alternate, imbricate, round, reddish brown.

**Stems:** green turning brown to purple in winter, angled, stout, may be covered with bloom (whitish waxy coating).

**Bark:** light gray with small vertical scales, deeply ridged with age.

**Flowers:** male and female on same plant; males in pendulous catkins, females in tiny spikes; not showy.

**Fruits:** acorn, solitary or paired, no stalk or short stalked, 1/2-3/4" long, oblong; cap encloses only 1/4 of the nut.

**Habit:** young – pyramidal; rounded and spreading with age.

**Culture:** The white oak prefers full sun and does best in moist and slightly acid soils, although it is not overly sensitive about its soil pH. Tolerates dry conditions. This species is extremely sensitive to soil compaction resulting from construction on properties with mature, established trees.

White Oak can be a difficult species to establish due to transplant difficulties associated with a very long tap-root. To maximize transplanting success, smaller-sized specimens are best used. Trees with trunk diameters of 4" or greater usually have a high failure rate. It also pays to buy this species from a high quality nursery that has undercut or pruned the roots several times in the production cycle. This pruning makes for a more fibrous root system and increases transplantability. Although usually transplanted B&B, some nurseries are growing them in containers with some success.

White Oak has several insect and disease pests including borers, cankers, root rots and several leaf eating insects but it is fairly resistant to oak wilt. It is important to only prune oaks when they are dormant as oak wilt can be spread through open pruning cuts during the growing season.

**Miscellaneous:** In spite of some problems, the white oak is a long-lived tree, with specimens commonly reaching 200 to 300 years of age or more in undisturbed sites. Oak was selected as the National Tree in 1998 when the first nationwide poll for this distinction was conducted. There is a species of oak native to every state in the country.

**Related species:** Swamp White Oak (*Q. bicolor*)



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