

## Learning about Water Oak *Quercus nigra*

Water Oak occurs primarily in bottomland forests. Water Oak is frequently used to restore bottomland hardwood forests in the Southeast on land that was previously cleared for agriculture or pine plantations.

**Characteristics.** Water Oak is a medium-sized conical to round-topped tree with a straight, slender trunk. Water Oak has thick, leathery, leaves that are simple and alternate. The shape of the leaves is extremely variable. They are usually broadest above middle, with the upper half being unlobed or lobed. Water Oak can reach 105 feet (32 m) in height and attain 6.5 feet (2 m) in diameter. The bark of mature trees is dark brown to black and quite rough near the ground. It is semi-evergreen in warmer parts of its range but completely deciduous in colder regions. Water Oak is a shallow rooted tree that grows best in soils that are well drained, including on levees, high ridges, and elevated margins of swamps and rivers. It does not do well on clay soils that are poorly drained.

**Seeds.** Water Oak is monoecious, which means that male and female organs are found on the same plant but in different flowers. It bears acorns by age 20 and acorn production is good on alternate years. Acorns mature in September of the second year and are dispersed from September through November. The best quality acorns are collected when the color has just changed to brown and they are picked or shaken from the tree. Acorns are best planted immediately after collection because they quickly lose their ability to germinate when stored. However, Water Oak acorns may be stored for a short period of time in moist, shaded sawdust or sand.

**Geographic Range.** Water Oak occurs on the Southeastern Coastal Plain from southern New Jersey and Delaware to southern Florida and west to eastern Texas. It occurs north along the Mississippi Valley to southeastern Oklahoma, Arkansas, Missouri, and southwestern Tennessee.

### Additional Information.

- Water Oak provides cover, food, and habitat for wildlife. Cavity nesters such as the Red-bellied Woodpecker, Great Crested Flycatcher, and Hairy Woodpecker nest in water oak snags.
- Water Oak acorns are eaten by many animals, including squirrels, chipmunks, waterfowl, and other birds such as the Blue Jay, Wild Turkey and Northern Bobwhite.
- Under favorable conditions, Water Oak may grow 24 inches (60 cm) per year.
- *Quercus nigra* is a larval host and/or nectar source for the White M Hairstreak butterfly (*Parrhasius m-album*).
- Choctaw Native Americans pounded Water Oak acorns into powder and used it like cornmeal.

### References:

**Quercus nigra**, accessed June 10, 2008 at <http://www.fs.fed.us/database/feis/plants/tree/quenig/all.html>.  
Ladybird Johnson Wildflower Center Native Plant Database, May 25, 2008, *Quercus nigra*, accessed June 10, 2008, at [http://www.wildflower.org/plants/result.php?id\\_plant=QUNI](http://www.wildflower.org/plants/result.php?id_plant=QUNI).



John Beck, Univ. of Tenn. Vascular Plants Atlas



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