

Quercus alba (White Oak) Beech Family (Fagaceae)

Introduction:

Quercus alba, the “white oak,” is a member of the white oak group with lobed leaves. *Quercus alba*, one of the most majestic of all grand oaks, is prominent throughout the eastern deciduous forest. In spring, its unfurling leaves are rose-colored and mature into a dark green. This oak has fine fall color and its leaves persist into winter. It draws its name from its ash-colored bark.

Culture:

White oak prefers full sun and moist, well-drained, acidic soil (pH 5.5 to 6.5). It is tolerant of drought once established, but will not tolerate alkaline or poorly drained soil. Most white oaks develop chlorosis, or yellowing of leaves, when grown under high pH conditions.

White oak will decline slowly if subjected to root disturbances such as soil compaction, cutting surface roots, decreases in leaf litter, or changes in soil drainage conditions. As little as 1 inch of fill soil can kill an oak.

White oak may be bothered by bacterial leaf scorch and two-lined chestnut borer. Other potential problems for oaks in general include obscure scale, oak horn gall and gypsy moth.

Additional comments:

Although white oak has wide, outspread limbs, its strong wood prevents storm or ice damage. Its well-developed tap root makes white oak somewhat difficult to transplant and for this reason, it is not widely available in the nursery industry. White oak can produce an abundant number of acorns.

White oak is not only the namesake for this group of oaks, it is a superior landscape and natural oak species. It is not as common in the nursery trade as the red oaks, but is well worth including in cultivated landscapes where space permits.

Quercus is the Latin name for the oak tree; the specific epithet, *alba*, is Latin for white, referring to this tree’s beautiful light-colored bark. Fall color in white oak is variable, but some white oaks have a brown to red color in autumn.

White oak wood has been traditionally used to make baskets and is widely used for making barrels for aging bourbon. The former national champion white oak (pictured above) located in Wye Mills State Park in Maryland, was 96 feet tall until it died in a storm in 2003.



Botanical Characteristics:

Native habitat: Central and eastern North America; Kentucky native.

Growth habit: Characteristic huge, wide-spreading crown.

Tree size: Can attain a height of 60 to 100 feet over its potentially long life of 800 years.

Flower and fruit: Female flowers are inconspicuous; however the pendulous male catkins look like a cloud of green smoke. The 1-inch long acorn has the top 1/4 covered by a scaly cap.

Leaf: Glossy green above and pale below, the large leaves are deeply lobed and have a tapered base. Fall color ranges from brown to rich red.

Hardiness: Winter hardy to USDA zone 3.