

# Kentucky Champion Tree Program

## SWAMP CHESTNUT OAK — UDDERLY MAGNIFICENT

by *Diana Olszowy*

Although not a particularly common oak species in the central part of Kentucky, this swamp chestnut oak is a magnificent state champion. Measuring nearly 20 feet in circumference and towering to 125 feet in height, this behemoth specimen has stood the test of time against ice storms, floods, droughts, winds from Hurricane Ike, and even urban development in the Louisville metropolitan area.

As a member of the white oak family, which also includes chinkapin, chestnut, bur, and post oak, the swamp chestnut oak is native to bottomlands and wetlands in the southern and central United States. Its range is from New Jersey south to Florida and west to Missouri and eastern Texas. In Kentucky, the swamp chestnut oak predominantly resides in the western third where it can be found growing in floodplains along with sweetgum, cherrybark oak, blackgum, and pin oak. It resembles white oak in growth form, size, bark color, and wood quality, but its leaves and acorns are very different. The leaf of the swamp chestnut oak is often confused with chestnut oak, but it is fuzzy beneath and turns a rich crimson color in the fall. Swamp chestnut oak is normally a much larger tree than white oak which differs in preferred habitat, and its bark is thinner, scallier, and paler gray and does not have the distinctive deep, rugged ridging of the chestnut oak.

Swamp chestnut oaks are intolerant of shade, which means they prefer growing out in the open with no other woody competition nearby. As they mature, they actually exude a growth inhibitor through their roots which keeps other woody plants from becoming established. This ability is referred to as allelopathy, and very few woody species have this ability; black walnut and tree-of-heaven are the only known exceptions.

The wood of the swamp chestnut oak is used in many kinds of construction: agricultural implements, wheels, veneer, boards, fence posts, tight cooperage, baskets, and fuel. The quality of the wood is second only to that of white oak. This tree is known by many aliases such as “basket oak” because of its high-quality wood, which can be sliced into flexible strips suitable for basket weaving, and “cow oak” because of its large, relatively sweet acorns, which are readily sought after by deer, turkey, hogs, and cows. These acorns lack the bitter tannin chemicals found in most oaks and



Photo courtesy: *Diana Olszowy*

are even tasty eaten raw. Good seed crops occur at intervals of three to five years with poor to fair production in between.

Due to its ability to tolerate standing water for several weeks at a time and its predominantly moist soil preference, swamp chestnut oak also serves as an ideal urban tree. Often urban soils are compacted, which means the amount of oxygen in the soil is minimized. Tree species that thrive in “wet soils” are used to minimal oxygen levels. For this reason, other bottomland species such as baldcypress, blackgum, and sweetgum have proven to be excellent urban trees.

If you are looking for a multifunctional tree that is valuable for timber, wildlife, stabilizing soil, and producing excellent shade, this species is an *Udderly Magnificent* choice.

#### **About the Author:**

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