

## ***Quercus macrocarpa* (Bur Oak)** **Beech Family (Fagaceae)**

### **Introduction:**

Bur oak is a member of the white oak group with lobed leaves. Considered the classic North American savanna tree, bur oak lacks some of the grace and beauty of white oak, but it is a much more adaptable tree. Bur oak offers large, beautiful leaves and acorns. During winter, it fully reveals its rough, gray bark.

### **Culture:**

Although the bur oak is too large for most home landscapes, it is an excellent park tree. Native to rich bottom land, this oak is tough and adaptable. It is cold hardy, tolerates drought and grows best in full sun. It is more tolerant of urban conditions than most oaks.

Its well-developed tap root makes bur oak difficult to transplant. Because of its large leaf size, leaf litter may be a landscape problem.

Although bur oak has no serious disease or insect problems, potential problems include obscure scale, two-lined chestnut borer, bacterial leaf scorch, oak horn gall and gypsy moth. In addition, as little as 1 inch of fill soil can kill an oak.

### **Additional information:**

The species name, *macrocarpa*, is derived from the Greek words *macro*s (large) and *carpos* (fruit), referring to the bur oak's large acorn. The bur oak acquired its common name because of the resemblance of the fringed acorn cap to the bur of the chestnut fruit.

The massive root system of the bur oak is said to be a mirror reflection of the trunk and branch system above ground. With this extensive root system it is not surprising that the bur oak is the dominant tree of midwestern prairies, often considered the advancing pioneer species. Remaining trees are considered the most fire-resistant, having withstood the ravages of periodic prairie fires.

The root system of bur oak successfully competes with prairie grass roots as well as neighboring bur oaks. Intense root competition keeps bur oaks scattered apart from each other throughout the savanna. Bur oak seedlings cannot survive in the shade of a dense forest.



### **Botanical Characteristics:**

**Native habitat:** Nova Scotia to Pennsylvania, west to Manitoba and Texas.

**Growth habit:** This tree has an irregular, open crown with coarse, broad-spreading limbs and a massive trunk.

**Tree size:** A slow-growing tree, it can reach 70 to 80 feet in height and width. This tree may live hundreds of years. It can exceed 100 feet in height.

**Flower and fruit:** Female flowers are inconspicuous. Pendulous male catkins are yellow-green. The 3/4 to 1½ -inch-long acorn is half covered by a fringed cap.

**Leaf:** Leaves are 4 to 12 inches long, lobed and shaped like a base fiddle. The beautiful leaf is glossy and smooth above while pale and hairy below. Fall color is a dull yellow to yellow-brown.

**Hardiness:** Winter hardy to USDA Zone 3.

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**Additional information (continued):**

Because the species is not reseeding itself as fast as individuals are dying, planting bur oak in the landscape is encouraged.

In Kentucky, bur oak was once common in the Bluegrass region and some stately trees remain standing. The national champion bur oak is in Paris, Ky.



Acorn fruit