

## **Bur Oak, *Quercus macrocarpa* Michx.**

(also called burr oak, mossy-cup oak, prairie oak; Plant Symbol = QUMA2)

Bur Oaks are common in the deciduous forests and prairies of the central United States. They range from southern Canada to the prairies of Texas. Depending on the habitat and the climate, these oaks can be large trees or shrubs.

**Description.** Bur Oaks are a large tree (70-150 feet in height) with a large leaf (6-12 inches long), and large, golf-ball sized acorns (1-2 inches). The acorn's cup is large. It covers half to two-thirds of the acorn with fringe at the edge (mossy-cup). The upper side of the leaves are smooth and dark green with deep lobes. The bottom side of the leaves is a paler green with short soft hairs. Petioles or leaf stems are stout ranging from 3/8 to inch. Bark is light gray, thick, rough, furrowed into scaly plates and vertical flattened ridges.



*Bur Oak Leaves and Acorn. Herman, D.E., North Dakota State Soil Conservation Committee.*



*Emerging foliage and catkins. Julie Makin, wildflower.org*

**Life Cycle.** Flowers are separate male and female catkins about six inches long. Plants typically pollinate from separate trees. It takes about 35 years before trees mature and can produce acorns. At that point acorns develop annually. Typically, Bur Oaks can live up to 200 years. In Plano, Texas the Quadricentennial Bur Oak in Bob Woodruff Park is estimated to be over 400 years old.

**Ecology:** Doug Tallamy, PhD., who studies insect-plant interactions at the University of Delaware, calls the oaks

(genus *Quercus*) a Keystone

Species in most North American landscapes. Keystone Species have a disproportionately large effect on the abundance and diversity of other species in the ecosystem. The National Wildlife Federation's Native Plant Finder is based on data from Dr. Tallamy's research. A Plant Finder query for zip code= 75092 (Sherman) identifies 468 species of butterflies and moths that use oaks in Grayson County, Texas as a caterpillar host plant. This makes oaks a caterpillar buffet for our local songbirds. These caterpillars are a key source of nutrition for chicks and their parents during the breeding season. U.S. Department of Agriculture, National Resource Conservation Service reports that, Bur Oak acorns are eaten by many birds and mammals, including squirrels, rabbits, mice, deer, wood ducks, and blue jays. They are dispersed by rodents and blue jays, which frequently cache the acorns for later use. The foliage is eaten by deer and cattle. Red-tailed hawks, screech owls,



*Banded Hairstreak use oaks as a larval host plant, Laurie Sheppard, Friends of Hagerman*

and squirrels build nests in large trees of bur oak. (For more on the importance of Oaks in the ecosystem check out Dr. Tallamy's new book, **The Nature of Oaks.**)

Submitted by David Parrish

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