

Quercus macrocarpa

bur oak, burr oak



Quercus macrocarpa (Bur oak) belongs to the group of white oaks and was discovered and named by the French botanist André Michaux, in service of King Louis XVI, in the United States in 1811. The bur oak has the largest natural distribution area of all the North American oaks, grows in the northernmost regions and is thus also the most winter-hardy. The tree grows in forests, along with other species including *Ostrya virginiana*, *Tilia americana* and *Fraxinus pennsylvanica*. Due to its large distribution area, *Quercus macrocarpa* grows in a wide range of locations, along river banks and in flood plains, where it can reach staggering heights of 50 metres. The bur oak also occurs in dry savannas, where the tree only grows up to 5 metres tall as a multi-stem tree. In cultivation, the *Quercus macrocarpa* can grow up to 25 metres tall and at an older age, it forms an open, round crown with dense branches.

The name *macrocarpa* - large fruit - refers to the tree's large acorns and cupules, by which you can easily recognise this oak. The leathery, obovate, medium to large leaves are dark green with a grey-green underside, turn yellow-brown in autumn and are similar to the leaves of the *Quercus bicolor* in colour and shape. The young shoots, buds and the underside of the leaves are slightly hairy. The three to four-year-old twigs form cork, giving the bur oak an impressive winter silhouette. *Quercus macrocarpa* has thick, grey, furrowed bark that peels off in long sheets.

Quercus macrocarpa is perfect as an impressive park tree. The species is clearly less sensitive to salt spray than other oak trees, and therefore also suitable for use in wide central reservations and avenues. As a pioneer species, the bur oak can handle drought, wind and sun very well, and it can also handle brief wet periods. *Quercus macrocarpa* does not grow in the shade and for the best growth, it requires a sunny environment in dryer, acidic soil.

TYPES OF PLANTING

Tree types: standard trees, multi-stemmed trees, shade trees

USE

Location: avenue, park, central reservation, large garden, cemetery, traffic areas, industrial zones, countryside, bioswale | **Pavement:** none | **Planting concepts:** Landscape planting, urban planting

CHARACTERISTICS

Crown shape: rounded | **Crown structure:** semi-open | **Height:** 20 - 25 m | **Width:** 20 - 25 m | **Winter hardiness zone:** 3A - 8B

ASPECTS

Wind: tolerant to wind | **Soil:** loess, sabulous clay, light clay, sand, loamy soil | **Nutrient level:** low in nutrients, moderately rich in nutrients, rich in nutrients | **Soil moisture level:** dry, moist, wet | **Light requirements:** sun | **pH range:** acidic, neutral | **Host plant/forage plant:** birds, small mammals | **Extreme environments:** tolerant to salt spray, tolerant to dryness, tolerates heat, tolerant to short-term flooding

PLANTKENMERKEN

Flowers: catkins, discrete, pendulous | **Flower colour:** golden yellow | **Flowering period:** May - May | **Leaf colour:** dark green, underside grey-green | **Leaves:** deciduous, obovate, big, leathery, underside hairy, lobate | **Autumn colour:** yellow-brown | **Fruits:** striking, rich fruit yield, large, acorn | **Fruit colour:** brown | **Bark colour:** grey | **Bark:** peeling, furrowed | **Twig colour:** grey-brown | **Twigs:** hairy, corky | **Root system:** deep, shallow, extensive, highly branched, tap root

