

# Oaks for Nebraska

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**R** = belongs to red oak group—acorns mature over two seasons & leaves typically have pointed lobes.

**W** = belongs to white oak group—acorns mature in one season & leaves typically have rounded lobes.

Estimated size range is height x spread for trees growing in eastern Nebraska.

A few places to see oaks: Indian Cave State Park; Krumme Arboretum in Falls City; Peru State College; Fontenelle Nature Center in Bellevue; Elmwood Park in Omaha; Wayne Park in Waverly; University of Nebraska Lincoln; Lincoln Regional Center Arboretum; Ehman Park in Gothenburg; Highland Park in Hastings; UNL Extension Center & Cody Park in North Platte; and UNL Extension Center in Scottsbluff.

## Native Nebraska Oaks



### **Black oak, *Quercus velutina* (R)**

Large growing native similar to red oak; leaves are glossy and dark-green above with velvety undersides; nice red-maroon fall color; should be planted more; 40-50'x 40-50'.



### **Blackjack oak, *Quercus marilandica* (R)**

Shorter and slower growing than most oaks with distinctive tri-lobed leaves; can take on a very natural look with age; tough and underutilized; good fall color; 30-40'x 25-35'.



### **Bur oak, *Quercus macrocarpa* (W)**

Our most common native oak; big and majestic - tough and reliable; thick, corky bark helped it to withstand prairie fire; twigs can have very corky ridges; large, fat, fan-shaped leaves; named for large acorns with bur-like fringes; 50-70'x 50-70'.



### **Chinkapin oak, *Quercus muehlenbergii* (W)**

Narrow, chestnut-like leaves; flaky, gray-yellowish bark with maturity; tolerates high pH soils; should be planted more; 40-60'x 30-50'.



### **Dwarf chinkapin oak, *Quercus prinoides* (W)**

Variable habit from shrubby to tree form; prolific acorn producer; can have nice yellow fall color; national champion grows near Salem Nebraska; 10-25'x 10-20'.



### **Red oak, *Quercus rubra* (R)**

Very reliable native; rounded habit; 7-9 shallowly lobed leaves are dull-green in summer with nice red fall color; 50-60'x 45-55'.



### **White oak, *Quercus alba* (W)**

Native to eastern Great Plains and extreme southeast Nebraska; similar in stature to bur oak – majestic and inspiring; light gray, scaly bark; fewer acorns; good fall color; 55-65'x 55-60'.



## Native U.S. Oaks



**Bear oak, *Quercus ilicifolia* (R):** Shrubby, multi-stem habit; native to northeastern US; leaves similar to red oak; slow grower; 10-20' x 10-20'.



**Cherrybark oak, *Quercus pagoda* (R):** Similar to red oak but with rough, scaly bark that can resemble black cherry when mature; prefers moist, fertile soils; can be fast growing; 40-60' x 35-50'.



**Chestnut oak, *Quercus montana* (W):** Bright green, chestnut-like leaf; prefers moist, fertile soils; distinctive ridged bark somewhat resembles an alligator's back when mature; 45-60' x 40-50'.



**Gambel oak, *Quercus gambelii* (W):** Native to southern Rocky Mountains; variable multi-stem habit – can be very shrubby in dry, difficult locations and more tree-like on better sites; very drought tolerant; 15-25' x 10-20'.



**Northern pin (Hill's) oak, *Quercus ellipsoidalis* (R)** Similar to pin oak but less prone to iron chlorosis; native to northern US; good red/maroon fall color; 40-50' x 35-45'.



**Overcup oak, *Quercus lyrata* (W)** Large bur oak-like leaves; acorns nearly covered by cap; 40-50' x 35-45'.



**Pin oak, *Quercus palustris* (R):** Beautiful, tall, upright habit with descending lower branches; good fall color; heavy acorn producer; very prone to iron chlorosis and should only be planted on acidic soils (pH <7.0); 50-70' x 40-50'.



**Post oak, *Quercus stellata* (W)** Tough, corky bark; medium rounded tree; distinctive, cruciform leaves; native into southern Iowa and eastern Kansas; 25-35' x 25-35'.



**Scarlet oak, *Quercus coccinea* (R):** Similar to pin oak; scarlet fall color; avoid high pH soils; 45-60' x 40-50'.



**Shingle oak, *Quercus imbricaria* (R):** Distinctive narrow, smooth-edged leaves that are held through winter; tan-yellow fall color; 40-50' x 35-45'.



**Shumard oak, *Quercus shumardii* (R):** Very similar to red oak in habit and leaf shape; good heat and drought tolerance; reliable red fall color; should be planted more; 40-50'x 40-50'.



**Texas red (Buckley) oak, *Quercus buckleyi* (R):** Related to shumard oak but leaves smaller and more glossy; native to southern Great Plains; very good drought tolerance; bright red fall color; 25-40'x 20-35'.



**Japanese Emperor (Daimyo) oak, *Quercus dentata*:** Similar to *Q. mongolica*; large, thick, fuzzy leaves held through winter making it somewhat prone to ice damage when young; 25-40'x 20-40'.



**Swamp chestnut oak, *Quercus michauxii* (W):** Similar to chestnut oak; native to wetter soils of southeastern US; scaly-grayish bark similar to white oak; 40-50'x 40-50'.



**Wavyleaf oak, *Quercus xundulata* (W):** A naturally occurring hybrid of *Q. gambelii* and *Q. turbinella* from Rocky Mountains and SW US; semi-evergreen leaves; typically multi-stem and shrubby; 10-20'x 10-20'.



**Liotung oak, *Quercus liaotungensis*:** Native to China and similar to Mongolian oak; large leaves; 30-40'x 30-40'.



**Swamp white oak, *Quercus bicolor* (W):** One of the most popular oaks for planting; attractive glossy leaves with silvery underside; good for wet or dry soils; can be chlorotic on high pH soils; 60'x 50'.



**English oak, *Quercus robur* (W)** Similar to white oak but with smaller, glossy-green leaves and long, abundant acorns; habit can vary from round and spreading to upright; tough and reliable; 60'x 50'.

### Non-native Oaks



**Mongolian oak, *Quercus mongolica* (W):** Similar to Bur Oak in habit and adaptability though doesn't grow as large; chestnut-like leaves; performing well in N. Dakota; 40-50'x 34-45'.



**Sawtooth oak, *Quercus acutissima*:** Fast growing oak from Asia; long, narrow leaves with sawtooth-like edges; upright growth when young; distinctive frilled acorn caps; 50-60'x 40-50'.

## Oak Hybrids, Varieties & Cultivars

**Black-blackjack (Bush) oak, *Quercus xbushii* (*Q. marilandica* x *velutina*), N:** Very similar to blackjack oak; occurs naturally in southeast Nebraska; 20-30' x 20-30'.

**Bur-chinkapin (Deams) oak, *Quercus xdeamii* (*Q. macrocarpa* x *muehlenbergii*), N:** Occasionally found in southeast Nebraska; a nice specimen grows on Peru State College campus; 40-60'x 40-50'.

**Bur-gambel oak, *Quercus macrocarpa* x *gambelii*:** Great heat and drought tolerance makes it a good choice for western Great Plains; abundant acorns at a young age (4yrs); 25-40'x 25-45'.

**Bur-swamp white (Schuette) oak, *Quercus xschuettei* (*Q. bicolor* x *macrocarpa*):** Vigorous habit; glossy, dark green leaves resist lace bugs; good acorn production; 50-60'x 50-60'.

**Bur-white (Bebbs) Oak, *Quercus xbebbiana* (*Q. alba* x *macrocarpa*):** Great looking tree; very hardy and

a vigorous grower; good fall color on some trees; 50-60'x 50-60'.

**Red-pin oak, *Quercus xcolumnaris* (*Q. palustris* x *rubra*):** Fairly common hybrid in nature and in nursery industry; many nice, large trees grow in Lincoln; avoid high pH soils; 50-60'x 40-50'.

### English oak Cultivars

**'Clemons' (Heritage) Oak,** Bur-English oak cross: *Quercus xmacdanielii* (*Q. macrocarpa* x *robur*): Vigorous grower with abundant acorn production; glossy leaves resist mildew; 50-60'x 30-40'.

**'Crimson Spire' oak,** White-English cross, *Quercus xbimundorum* (*Quercus alba* x *robur*): Possesses a narrow-growing habit and red fall color; 40'x 15'.

**'Regal Prince' (Ware) oak,** Swamp white-columnar English, *Quercus xwarei* (*Q. robur* var *fastigiata* x *bicolor*): Regal Prince Oak has a very attractive, upright habit with glossy foliage.

### Potential Oaks

(need further testing or special siting)

**Chinese cork oak, *Quercus variabilis*:** Leaves and habit similar to sawtooth oak; corky bark; 40-60'x 35-55'.

**Downy oak, *Quercus pubescens*:** Attractive small, leathery leaves that emerge pubescent, thus its common name; short, irregular habit; doing well in Waverly; 20-30'x 20-30'.

**Hungarian oak, *Quercus frainetto*:** Native to Balkan Peninsula; white oak family; attractive glossy leaves with silvery undersides; doing well in Waverly; 35-45'x 30-40'.

**Mohr (shin) oak, *Quercus mohriana*:** Native to New Mexico, west Texas/Oklahoma; shrubby, multi-stem habit; distinctive leaves with silvery pubescent undersides; tolerates dry, alkaline soils; 15-25'x 10-20'.

**Oriental white oak, *Quercus aliena*:** Little know oak from China; glossy, chestnut-like leaves; nice fall color; doing well in Waverly; 40-50'x 30-40'.

**Shrub live oak, *Quercus turbinella* (W):** Shrubby habit; semi-evergreen; best for western Great Plains; 15'x 15'.

**Southern red oak, *Quercus falcata*:** Somewhat similar to red oak but with distinctive turkey-foot like leaves that have wider lower lobes; maroon fall color; good on dry sites; does well in eastern Kansas; 30-40'x 30-40'.

**Water oak, *Quercus nigra*:** Very distinctive tip-heavy leaves somewhat like blackjack oak; prefers moist, well-drained soils; 30-40'x 30-40'.

**Nuttall oak, *Quercus nuttallii*:** Similar to shumard oak; native to lower Mississippi drainage basin; tolerates poorly drained soils; red fall color; 40-60'x 35-50'.

**Turkey oak, *Quercus cerris* (I):** Native to Europe and Asia Minor, including Turkey; leaves similar to white oak; tolerates alkaline soils; 40-60'x 40-50'.

**Willow oak, *Quercus phellos*:** Narrow willow-like leaves; pin-oak like habit and siting requirements; 45'x 40'.

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