Oaks for Nebraska

Quercus velutina

Quercus imbricaria

Quercus alba

Quercus rubra

Quercus muehlenbergii

NSA Brown Bag - November 2, 2017
The Amazing Beauty and Diversity of Oaks

Ferns and Spanish moss on Live Oaks (Q. virginiana)
Savannah GA. Patty Hankins
English Oaks - Quercus robur
Gnarled and Spooky
Majestic!

Angel Oak, John’s Island SC
Q. virginiana – 1500 y.o.
Image: angeloaktree.org

Q. alba – Maryland – 600 YO
Josephine Bur Oak
Petersburg, IL
Fun Facts About Oaks

- Quercus: Celtic in origin meaning beautiful tree.
- 600 Species worldwide – mostly northern Hemisphere.
- 200 Species in North America – over 90 in US; over 100 in Mexico; 7 in Nebraska
- Oaks are highly variable and promiscuous – many hybrids.
Oaks Can Grow Big and Old

- Range in size from over 100ft tall to sprawling shrubs. Nat Champ white oak 144’ tall (Virginia); Valley Oak 150’ (California);
- Nat. Champ. bur oak (Indiana): 99’ tall; 128’ spread; 24.5’ circ. – Nebraska champ (Peru): 90’ tall; 94’ spread; 19’ trunk circ.
- Oaks can live for centuries: English oaks 1500-2000 YO in east Europe; Southern Live oaks in US potentially 1500 YO – South Carolina, Louisiana; Wolf Oak at Ponca State Park born 1644 – 375 YO Other Nebraska oaks could be 800+ YO

Old Wye Oak – MD – 100’ tall, 120’ wide, 32’ circ.
Angel Oak (Q. virginiana), SC – 1500 y.o.
Other Fun Facts

- Several species are evergreen or marcescent.
- Important food to American Indians.
- Lots of genetic adaptability to climate extremes.
- Global warming is speeding up mortality from various diseases and insects.
- Oaks are generally a climax species.
- Oaks are incredibly important ecologically supporting a wide diversity of associated wildlife.
Dwarf Chinkapin Oak

Red Oak - Lincoln

Richardson County Bur Oak
My Favorite:
*Quercus macrocarpa* - Bur Oak
Wilderness Park, Lincoln

“Wolf Oak” - Ponca State Park – Born 1644
Bemis Park Neighborhood - Omaha
Burr Oak Canyon – SW Nebraska
Another Favorite

Quercus muehlenbergii – Chinkapin Oak
### North American Oaks

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<td>Shumard Oak</td>
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Albuquerque = Duke of Albuquerque - Spain
Non-Native Oaks

Sawtooth Oak (Q. acutissima)
Oriental White Oak (Q. aliena)
Japanese Emperor Oak (Q. dentata)
Hungarian Oak (Q. frainetto)
English Oak (Q. robur)
Downy Oak (Q. pubescens)
Mongolian Oak (Q. mongolica)
Liaotung Oak (Q. liaotungensis)
Various Hybrids
Red Oaks vs White Oaks

Q. rubra

Q. shumardii

Q. alba

Q. macrocarpa
Leaf Variety – White Oaks

Q. stellata

Q. alba

Q. muehlenbergii

Q. macrocarpa

Q. bicolor
Red Oaks

- Quercus nigra
- Quercus imbricaria
- Quercus rubra
- Quercus marilandica
- Quercus 'Lefler'
Fall Color – Red Oaks

Quercus velutina – Black Oak

Quercus buckleyi – Texas Red Oak

Quercus shumardii – Shumard Oak

Quercus rubra – Red Oak

Quercus coccinea – Scarlet Oak

Quercus ellipsoidalis – Hills Oak

Quercus marilandica – Blackjack Oak
Fall Color - White Oaks

Quercus alba – White Oak

Quercus bicolor – Swamp White Oak

Quercus muehlenbergii – Chinkapin Oak
Bark

- Q. muehlenbergii – yellow oak
- Q. alba – white oak
- Q. velutina – black oak
Variability in Bur Oak

Macrocarpa = big fruit/seed

Greeley Co., Nebraska

Texas/Oklahoma

UNL East Campus

Platte River SP - NE
Planting Acorns
Eating Acorns
Wayne Park & Arboretum
Waverly
White Oaks

Q. macrocarpa
Q. muehlenbergii
Q. montana

Q. michauxii
Q. bicolor
Q. lyrata
Q. Stellata – Post Oak
Red Oaks

Q. rubra
Q. shumardii
Q. velutina

Q. marilandica
Q. buckleyi (texana)

Image: floresflowers.com

Image: waymarking.com
Q. imbricaria
Shrubby Oaks

Q. prinoides

Q. ilicifolia
Q. gambelii

Q. turbinella

Q. undulata
Hybrid Oaks

Q. × macdanielli (macrocarpa x robur)
Q. × schuettei (macrocarpa x bicolor)
Q. × schociana (imbricaria x palustris)
Lefler Oak
Introduced Oaks

Q. robur ‘Salicifolia’
Q. frainetto – Hungarian Oak

Q. pubescens (downy oak)
Waverly Bur Oak Growing Study 2011-2017
December 2012 Root Systems
Root Evaluations
October 2017

Air Spading
#7 RT Bur Oak – 4 years after planting in Omaha
Oh how nice our trees would be, if....
Quercus alba

Quercus macrocarpa
Quercus acutissima

Quercus imbricaria

Quercus ellipsoidalis

Quercus rubra