



BEESON'S
McHenry County
Nursery, Inc.

Nursery News

January 2008 - Research & Development

www.beesongrows.com/ArchivePage.html

©2007 Beeson's McHenry County Nursery. All Rights Reserved.

The Next Generation of Oaks

Although very few of the natural savannas are left, the oak remains a formidable, if underutilized tree in our natural areas and urban landscapes. Oaks are valuable for their strength, beauty, and adaptability to many sites and conditions. There is an oak for almost any landscape situation, including even the most difficult urban sites. (see 'The History of Our Native Oaks' post at www.beesongrows.com/FieldNews.html)

Oak Roots

The very thing that makes them so tough are also what can makes them difficult to transplant. Today, most of the problems with growing and transplanting oaks have been overcome with improved growing methods to train and maximize fibrous root systems in the transplant zone.

With proper planting, and healthy roots from the nursery, most oaks are fast growing once established. They are pioneer trees after all, and the Bur Oak dominated the prairies, surviving harsh conditions and fires with its thick bark and towering branches. With more types of oaks available in the market and more attention paid to the disappearing oak habitats, new oak plantings will be increasing, and oaks will have the chance to again be the defining landscape feature of this region for generations to come.



GO Trees- Container Growing

After shifting up to larger container sizes, oak seedlings are maintained in our GO Trees-Container Tree system (see www.beesongrows.com/images/0307GOTrees.pdf). In some cases, root treatments are used to increase root branching at transplant time, including inoculating the roots with mycorrhizae to help the oaks get established. (See 'A Word of Caution on Fertilizing Woody Plants' at www.beesongrows.com/ArchivePage.html) When the oaks reach 1.5" in the #10 - #20 containers, they have a fully contained, more fibrous root system as well as a stocky trunk and branch structure. These trees can be transplanted any time of year as long as they are planted at correct depth, watered sufficiently, and mulched in their new site. (see www.beesongrows.com/images/0307GOTrees.pdf)

GO Oaks- Collection and Propagation

Glacier Oaks Nursery propagates the majority of our oaks from locally collected acorns. Grower and Propagator, Mary T. McClelland, has been testing and fine-tuning the collection, treatment, storage, sowing, and growing of native plants - oaks in particular. The strongest seedlings are selected and grown in air pruning pots for several years, with periodic transplanting, developing a well-branched root system as well as a straight and sturdy trunk.



Field Growing at McHenry County Nursery

A percentage of the container oaks are sold and successfully planted in landscapes, typically parks and forest preserves. Others are lined out in our growing farms on the rolling slopes of White Rock Moraines laid down during the Illinois Glacial Period 25,000 years ago. Our forest soils have a pH between 5.5 and 6.5, which most oaks prefer (but oaks can also thrive within a wider pH range when established). Our soils also have a clay element that forces the deep-rooted oaks to develop another layer of shallow roots within the upper few inches of soil.

At McHenry County Nursery, we are able to successfully grow and transplant many species of Oak because of our understanding of the balance between the tree above ground and the roots sustaining it below.



Inquiries or more information is available by contacting **McHenry County Nursery Green Tech** Mary McClelland
Phone (815)943-TREE www.beesongrows.com mcn@beesongrows.com Fax(815)943-3511

We Print on
Recycled Paper
Do You?





BEESON'S
McHenry County
Nursery, Inc.

Nursery News

January 2008 - Research & Development www.beesongrows.com/ArchivePage.html

©2007 Beeson's McHenry County Nursery. All Rights Reserved.

The Next Generation of Oaks

Oaks are a fascinating and useful group of trees. They are so widespread because of their ability to evolve as habitat is disrupted by environmental and man-made changes. Oaks can diversify and hybridize, repopulating an area with trees that have the traits needed to survive. Oaks hybridize easily within their groups, for instance, Bur oak freely hybridizes with Swamp White Oak.

	Latin Name	Common Name	Mature Ht x Wd	Shape	Distinct Features	Fall Color	Drought Tolerant			Shade Tolerant		Alkaline Soil Tolerant	Transplanting (relative to oaks)	Other Site Tolerances
							Yes	No	Yes	Yes	No			
WHITE OAK GROUP (in order of adaptability to urban use)	Quercus macrocarpa	Bur	80'x80'	Pyramidal	Tolerates almost any site. Corky ridged bark and majestic branching.	Yellow to Purple	Yes	No	Yes	Intermediate			Soil Salt Salt Spray	
	Quercus muehlenbergii	Chinkapin	50'x40'	Open-Rounded	Named for the leaves which resemble those of chestnut. Acorns are sweet and edible.	Gold Yellow	Yes	No	Yes	Intermediate			Salt Spray	
	Quercus bicolor	Swamp White	60'x50'	Rounded	One of the best native oaks for use in our region. Attractive exfoliating bark.	Yellow to Red	Yes	No	No	Easy			Wet Clay Compacted Soil Salt Spray	
	Quercus alba	White	50'x40'	Broad Rounded	Colorful leaves spring to fall. Majestic specimen in the right environment.	Wine Red to Purple	Yes	No	No	Hard			Soil Salt Salt Spray	
RED / BLACK OAK GROUP (in order of adaptability to urban use)	Quercus shumardii	Shumard	50'x40'	Pyramidal	Grows well where Pin Oak will not. Appearance similar to Red Oak	Russet to Bright Red	Yes	No	Yes	Easy			Compacted Soil Short term flooding	
	Quercus imbricaria	Shingle	55'x25'	Pyramidal	Wood was used to make shingles. Unusual oblong leaves persist in winter.	Russet Red	Yes	No	Yes	Easy			Soil Salt Cold Tolerant	
	Quercus rubra	Northern Red	75'x75'	Rounded	Only oak in the Maple-Linden community. Prefers moderate sights.	Scarlet to Mahogany Red	Yes	Yes	No	Easy			Compacted Soil Soil Salt Salt Spray	
	Quercus velutina	Black	50'x45'	Oval to Rounded	Rugged, drought tolerant oaks, but sensitive to soil or grade changes.	Rusty Red	Yes	No	No	Hard			Clay Soils	
	Quercus coccinea	Scarlet	75'x50'	Open Globe	Fastest growing of the oaks. Closely related to Pin Oak.	Scarlet Red	Yes	No	No	Hard			Salt Spray	
	Quercus ellipsoidalis	Hills / Northern Pin	60'x40'	Strongly Pyramidal	Slow growing but long lived oak. Northern form of Scarlet Oak.	Bronze Red	Yes	No	No	Hard			Salt Spray Wet	
	Quercus palustris	Pin	70'x40'	Pyramidal	Good form when young. Was used to make 'pins' to hold beams before nails and bolts.	Scarlet Red	Yes	No	No	Easy			Soil Salt Salt Spray Wet Compacted Soil	



Most Oaks:

- Prefer acidic soil
- Prefer Moist, Well-Drained Soil
- Prefer Full Sun
- Tolerate exposed sites
- Are a good food source for wildlife
- Are used in open areas
- Are used for naturalizing
- Are used for suburban and urban sites

Inquiries or more information is available by contacting **McHenry County Nursery Green Tech** Mary McClelland
Phone (815)943-TREE www.beesongrows.com mcn@beesongrows.com Fax(815)943-3511

We Print on
Recycled Paper
Do You?



BEESON'S
McHenry County
Nursery, Inc.

Nursery News

January 2008 - Research & Development

www.beesongrows.com/ArchivePage.html

©2007 Beeson's McHenry County Nursery. All Rights Reserved.

The Next Generation of Oaks



White Oak, as the state tree of Illinois, has a better chance of being protected in construction, but this oak is especially sensitive to habitat changes. White Oak evolved in a forest environment, with temperatures and moisture moderated by the forest canopy. They can be used in the landscape with success if planted as a small container tree in well-drained soil, with consistent mulching and care.



Scarlet Oak and Northern Pin Oak are closely related, and may be regional versions of the same species or hybrids with other red oaks.



Oak Facts

- The Oak is our National Tree
- The White Oak is the State Tree of Illinois (as well as other states)
- About four hundred species of oaks grow worldwide
- 100 species of oak are native to US
- Oaks occur naturally in all but one of the contiguous states (Idaho)
- The Oak genus has the most species, the most individual trees, and the widest distribution of hardwood trees in the US
- 20 species of oak are native to Illinois (around 10 species available commercially)
- Oaks in northern climates adapted with smaller acorns that mature faster, ensuring more success in shorter northern growing seasons



Swamp White Oak has many characteristics that make it a good urban tree, making itself at home in wet, acid soils, compacted or clay soils, or well-drained soils. Swamp White Oak evolved to survive the wet savannas with clay subsoil, which were often flooded early in the year and parched in the fall.

The Incredible Edible Oak

Squirrels, jays and other animals relish acorns of the many oak species, but acorns were also a staple food for humans at one time. Acorns are enjoyed today in many different forms and places all over the Northern Hemisphere. Before the age of agriculture, or in places where grains were scarce, acorns leached of their bitter tannins made for a nutritious food.

FOR MORE INFORMATION:

See William Bryant Logan's new book *Oak-The Frame of Civilization*, 2005 for more on the many connections of human societies and oaks.

See 'Landscaping Not Just For the Birds'
www.beesongrows.com/ArchivePage.html



Bur Oak starts slow, but is a valuable landscape tree when established. It is one of the toughest, hardest native oaks. Bur Oak is a highly adaptable tree that tolerates dry to wet sites, clay to lime, floods to droughts, and even fire. Bur Oak dominated the grassy mesic savannas from silt loam to gravel soils.

Chinkapin Oak thrives naturally on rocky limestone bluffs, but it also grows well and reaches great sizes in rich bottomlands. This highly adaptable and attractive oak is underutilized in the landscape.