

This guide will answer some of the most commonly asked questions about tree planting in the area. It suggests native and well-adapted trees for our region and describes how to grow them successfully.

If it helps to convince you of the need to plant or helps you with actual tree planting, it will fulfill its purpose. The tree illustration fold-out can also be used as a poster. Please pass along or recycle this guide when you are through with it.



### SUMMER

Deciduous trees placed on the south and west walls will reduce indoor temperatures in summer by shading the roof and walls.



### WINTER

In winter, these trees allow sunlight to help heat the house.

# Why Plant Trees?

### **Energy Conservation**

Properly placed shade trees can reduce home energy consumption by up to 30% by providing shade for roofs and walls and moderating the effects of wind and rain.

### **Property Value**

Trees help to stabilize your neighborhood and can add 13% to 21% to the value of a typical home by increasing curb appeal.

### **Air Pollution Reduction**

Trees help clean the air by removing poisonous gases and particulates such as dust and pollen. Through photosynthesis, trees reduce atmospheric levels of carbon dioxide and release vital oxygen. In addition, well-placed trees reduce the need to burn fossil fuels to generate energy for air conditioning.

### Water Quality and Conservation

Trees and other landscape plants help slow surface water runoff and reduce soil erosion. Trees also intercept and store some rain water and may reduce the possibility of flooding. Shade from trees plus evaporative cooling reduces overall temperatures so plants and turf require less water.

### Wildlife Habitat

Trees provide food, nesting sites and protection to a wide variety of birds and animals.

### **Environmental Improvement**

By planting trees in the urban environment we can help restore the natural cycle of plant growth, reproduction and decomposition. Moreover, trees contribute to community pride, instill feelings of relaxation and tranquility and add natural character and beauty through a variety of forms, colors and textures.

### **Personal Statement**

Planting a tree says you care about our environment and our future. What better way to honor a friend or loved one or commemorate a birth or marriage than to plant a tree?

# Where To Plant

### **Plan Before You Plant**

Make a sketch of your property showing existing trees and landscape, sidewalks, driveways, building outlines, compass directions and overhead or buried utility locations. Play it safe and call "Louisiana One Call" utility locators two working days before digging (800-272-3020), and they will mark locations of underground utilities and facilities. Or you may call your local utility operators. Determine your tree planting goals, and select trees that fill your needs.

### **Planting Site Selection**

Consult the tree chart to determine mature height and spread of your selected trees. Make sure you give your tree adequate room to grow. Trees and shrubs should not be planted where they block access to utility installations or where they will grow to interfere with utility lines or equipment. Eventually, a newly planted tree can grow into electric lines and cause power outages. Clearance of at least 8 feet is required in front of electrical transformers on ground level.

Try to envision your trees five, 10 or even 50 years into the future. Know what a tree will look like at maturity, and consider height, crown spread and root space when planning your landscape. Do not plant tall trees near overhead utility lines. For reference, the Tree Species Selection Chart lists mature sizes.

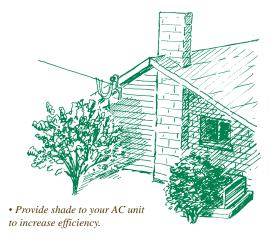
Large deciduous trees on the south and west sides of your house will shade the roof and walls in the summer and help conserve energy. In the winter, they'll allow the warming sunlight through (see illustration). Evergreen trees planted on the north side of your home can help block cold, north winter winds.

### **Things To Avoid**

- Planting large trees under utility lines.
- Blocking traffic signs or views at corners.
- Planting trees or shrubs too close to ground transformers.
- *Planting large trees too close to buildings* (< 20').
- Blocking windows or desirable views.
- Planting where roots will damage pavement.
- Spacing trees too closely or shading gardens.
- Encroaching on your neighbor.

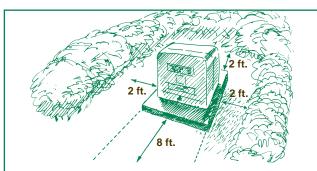
Achieving maximum enjoyment from your trees and avoiding future problems will be realized through good planning. Consult a landscape architect or other qualified professional if you need help in planning your landscape.

- Use small trees, shrubs, and vines to provide shade for walls and windows if there's not enough space for a large tree.
- Plant only trees with a small mature height near or under overhead utility lines. (See Tree Species Selection Chart for trees under 25 feet.)



# What To Plant

Many kinds of trees are available for planting in your yard. The Tree Species Selection Chart and tree illustrations can help you decide what to plant. The references should help if you want more information on planting. When choosing your tree, buy trees from a reputable nursery. They may cost a bit more, but you will get a better product. Select trees with a straight, single central leader and no damage to the bark or broken or dead limbs. Examine the trees carefully. Pay especial attention to the lower trunk – it should not have any obvious wounds or show signs of decay – and the root ball. Roots should occupy most of the pot, and they should be white and healthy looking. The trunk should not be loose in the root ball.



• Avoid planting trees or shrubs around electric transformers. Allow at least 8 feet in front of transformer and 2 feet around sides and back as shown.

# When To Plant

Now! The best time to have planted a tree was 50 years ago. The next best time is now. Trees grown in containers can be planted at any time, but November through February is best in our area. This will allow the roots of your new tree to become established before our hot dry summer arrives.

## Care of Your Tree

Monitor your tree for problems such as disease, insects and broken or dead limbs. You'll be amazed at how your tree will respond to your care. The establishment period lasts about 12 months for every inch of trunk caliper. So a 3-inch caliper tree will take about three years to become established.

Regular watering is important during this critical phase. New trees need about 1 inch of water each week for about two years when rainfall is low. Be careful not to drown the roots; they need air as well as water to grow.

Don't add fertilizer at planting. Sprinkle a balanced fertilizer (one that contains nitrogen, phosphorus, potassium and micronutrients) over your planting area the next spring, and then again two times during the growing season. Always follow the fertilizer's label as to the amount to apply. Too much fertilizer can injure the tree. Remember: a good mulch layer will provide a natural source of nutrients to the tree. Maintain a 3- to 4-inch mulch layer within the planting area. Keep the mulch away from the base of the trunk to avoid potentially rotting the bark.

It's **not necessary** to prune a tree at the time of planting unless it is to remove the following:

- Dead branches
- Diseased or damaged branches
- Crossed or rubbing branches

Follow the pruning diagram to remove limbs correctly. With the proper technique, the tree will heal more quickly and with less stress. Always sterilize your tools to avoid the spread of disease. Do this before you start, when moving from tree to tree and when the job is complete.

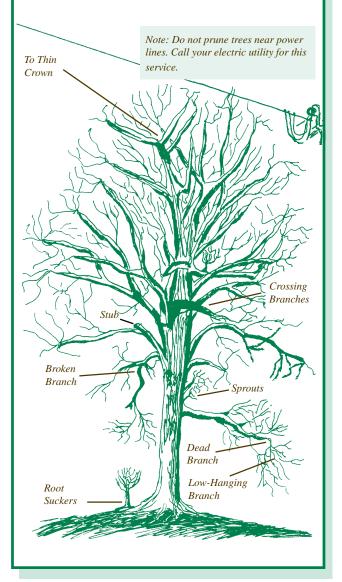
With proper care, your tree investment will pay off many times over. Develop a working relationship with a licensed, insured and qualified arborist and call him/her if you have any questions about tree care.



### PROPER TREE PRUNING

- Use this method to remove a limb with a saw, so the limb doesn't "tear" down the remaining branch or trunk.
- Use lopping shears on branches smaller than 3/4 inch in diameter.
- Remove branches larger than 3/4 inch (with hand or chain saw) using this three-cut method:
- 1) Undercut 12 to 24 inches up from the branch collar. This stops the bark from tearing.
- 2) Make the second cut from the top all the way through the branch, 2 to 3 inches above cut 1.
- 3) The final cut should be just beyond the branch collar. Support the stub so it doesn't tear the bark.

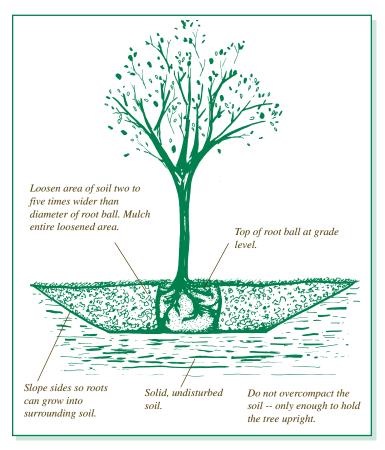
### REASONS TO PRUNE



# Simple Steps To Planting a Tree

- 1 Select the right tree for the right place. Proper tree planting begins with good planning. Determine your planting goals, and match the mature size, light, soil and moisture requirements of your tree to the site. (Refer to the Species Selection Chart and Tree Spacing Guide.)
- 2 Mark out a planting area two to five times wider than the root ball diameter (the wider the better). Loosen this area to about an 8-inch depth. This will enable your tree to extend a dense mat of tiny roots well out into the soil in the first 10 weeks in the ground. Often root growth is limited by the width of the hole and loosened soil perimeter.
- 3 In the center of the planting area, dig a hole at least twice as wide as the root ball and no deeper than the depth of the soil in the root ball. The bottom of the ball should rest on solid, undisturbed soil. When finished, you want the soil at the base of the tree to be at the same level on the tree as it was in the container or slightly (1 inch) higher. If part of the trunk gets below ground, its bark will rot. The roots also need to get the same ratio of air to water that they received when the tree was in the container or at its original site. Resting the tree on solid ground prevents excessive settling. The sides of your planting hole should slope outward to facilitate the growth of new roots out of the planting hole (see diagram).
- **4** Make sure the sides of the hole are rough and uneven. In very hard soils, a rough edge to the hole may help force new roots to grow out into the surrounding soil.
- 5 Place the tree in the hole. If the tree is in a container, pull the container away from the root ball, but don't pull the tree out by its trunk. Check carefully for circling roots and be sure to always score the sides of the root ball with a knife to initiate new root growth into the loosened soil. Place the root ball in the center of the hole, and adjust the tree so it is straight and at the proper level. Pulling the tree out of the container by its trunk is a good way to damage the small roots within the ball. The tree needs these roots to help survive transplanting to its new home. Stand back and look at the tree now, before you put the soil back into the hole. You can make fine adjustments at this time without seriously harming the root ball.
- 6 For balled and burlapped trees, rest the root ball in the center of the hole, and reshape the hole so the tree will be straight and at the proper level. After adjusting the tree, pull the burlap and any other material away from the sides and top 2/3 of the root ball. Don't try to get the material out of the hole; just let it rest beneath the root ball of the tree. Exposing the sides of the root ball to the soil will enable the tree's roots to grow in the most important directions outward. If you adjust or lift the tree after its ball has been unwrapped, chances are the root ball will be damaged and the tree may not survive.

- **7** Backfill with the original soil. Mixing fertilizer, compost or other material with the original soil is not recommended. If the backfill soil around the root ball is improved, the tree may be slow in developing a good, widespread root system and it may cause drainage problems.
- 8 Fill the hole half full of soil. Flood the hole slowly with water, OR tamp gently with your foot to firm the soil. Repeat until the hole is full. Don't press too firmly, only firmly enough to hold the tree upright. The best soil for root growth has spaces for both air and water, but large air pockets can cause problems. This method of backfilling with soil and water or gently tamping will remove these large air pockets.
- **9** Cover the entire loosened area of soil with 3 to 4 inches of mulch -- shredded wood or bark, compost or dry leaves, for example. Mulch will slow water loss, reduce competition from weeds and grasses, will moderate soil temperature and will provide a small amount of nutrients. If you use shredded bark or wood, it is best to use "ripened" or composted materials. Pull the mulch back slightly from the trunk.



# Tree Spacing Guide for Your Landscape

Tree Height From	Minimum Spacing From Wall	Minimum Spacing Building Corner
Up to 25'	10'	10'
25'-50'	15'	15'
50'+	20'	15'

### Note, these are general guidelines only:

- Check each tree's mature spread when placing trees so you don't crowd them.
- Leave half of this spread between the tree and building, utility lines or existing mature trees.
- When planting several new trees, remember to space them so all will have room for their mature spread.
- When planting near street corners, don't choose trees or shrubs that will block a driver's view of the sign, signal or intersecting street. Select species that are high branching and will not hamper vehicular traffic.

### References

**Louisiana Cooperative Extension Service publica-**

uons.	
#1669	Leaf Key to Common Trees in
	Louisiana
#1744	Protecting Shade Trees around
	Your New Home
#1622	Trees for Louisiana Landscapes - A
	Handbook
#2074	Selection and Care of Pecan
	Varieties for Louisiana Yards

### Other References

(on-line only)

Odenwald, N. and Turner, J. 2000. *Identification, Selection and Use of Southern Plants for Landscape Design*. Baton Rouge, La.: Claitor's Publishing Division.

Miller, J.H. and K.V. Miller. 1999.

Forest Plants of the Southeast and Their Wildlife
Uses. Auburn, Ala., Craftmaster Printers, Inc.

Dirr, M.A. 1998.

Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics,

Culture, Propogation and Uses. Champaign, Ill.,

Stipes Publishing L.L.C.

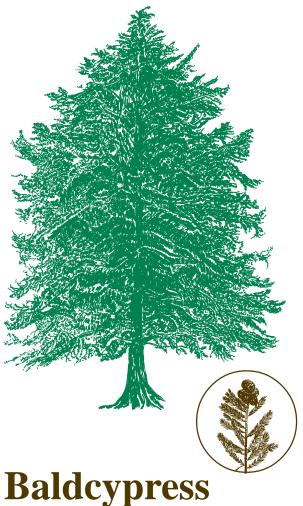
### TREE SPECIES SELECTION CHART

Common Name	Tree Type	Mate Height S		Growth Rate	Moisture Conditions
Baldcypress	Deciduous	100'	25-50'	Rapid, then moderate	Moist to wet
Blue Beech	Deciduous	20-30'	15-25'	Slow	Moist
Eastern Red Cedar	Evergreen	50'	30'	Slow to moderate	Moist to dry
Flowering Dogwood	Deciduous	25-30'	20'	Moderate	Moist to dry
Fringe Tree	Deciduous	20-30'	12-20'	Slow to Moderate	Moist
Green Ash	Deciduous	60'	50'	Rapid	Moist
Hickory	Deciduous	75'+	50'	Slow to moderate	Dry to moist
Holly	Evergreen	to 25'	to 25'	Moderate	Moist to wet
Live Oak	Evergreen	75'	100'	Moderate, then slow	Dry to moist
Pecan	Deciduous	75'	50'+	Moderate to rapid	Moist to dry
Plum	Deciduous	to 25'	to 25'	Moderate to rapid	Moist to wet
Redbud	Deciduous	to 25'	to 25'	Slow to moderate	Moist
Red Buckeye	Deciduous	8-20'	6-10'	Moderate	Moist to dry
Red Maple	Deciduous	50'-60'	25-35'	Rapid	Moist to wet
Red Oak	Deciduous	to 100'	to 75'	Moderate	Moist to dry
River Birch	Deciduous	to 50'	25-35'	Fast	Moist to wet
Serviceberry	Deciduous	10-25'	6-20'	Moderate	Moist to dry
Shining Sumac	Deciduous	8-10'	5-25'	Fast, then moderate	Dry to moist
Silverbell	Deciduous	to 25'	to 25'	Slow	Moderate
Southern Haws	Deciduous	20-25'	10-15'	Slow to moderately slow	Wet to dry
Southern Magnolia	Evergreen	to 75'	to 50'	Slow to moderate	Dry to moist
Southern Pine	Evergreen	100'	50'	Moderate to dry	Moderate
Sparkleberry	Semi-evergreen	10-20'	6-10'	Slow	Moist; acid
Sweetbay Magnolia	Semi-evergreen	30-60'	20-40'	Varies by site	Wet to slight dry
Sycamore	Deciduous	100'	50'+	Rapid	Moist
Winged Elm	Deciduous	20-60'	15-40'	Moderate	Moist to dry
Yellow-Poplar	Deciduous	to 90'	to 50'	Moderate to fast	Dry to moist
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# TREE SPECIES SELECTION CHART (cont'd) Possible

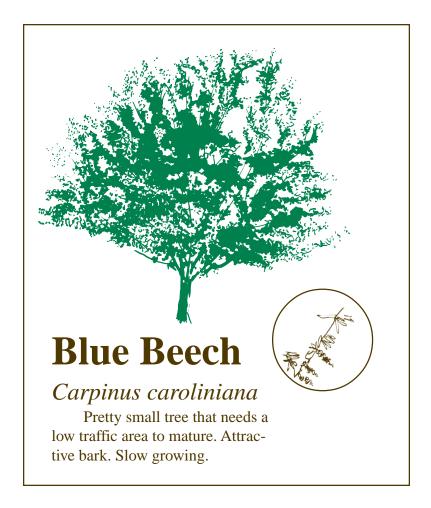
Benefits	Possible Problems	Comments
Fall color	Knees on wet sites	Well adapted to many soil conditions and moisture; handles wet areas well.
Trunk interest; fine texture fall color; long lived	Sensitive to grade changes	Thrives in full sun, but is also very shade tolerant; so place in a no-traffic area.  Hard to transplant large specimens.
Dense foliage; living Christmas tree	Diseases; insects	Shallow roots; performs best in high pH soils.
Flowers; wildlife	Dieback; disease; insects	Beautiful fruit and flowers; must grow in an acid, sandy, well-drained soil.
Fragrant flowers; wildlife; fall color	Difficult to transplant; produces abundant seedlings under fruiting tree	Good for naturalistic settings; male trees produce showier flowers, but no fruit; prefers acid soil.
Shape/color	Insects; decay	Compound foliage. Well-suited to many soils. Attractive shape and foliage.
Wildlife; fall color; fruit	Insects; decay	Attractive fall color; durable tree.
Fruit; wildlife; fall and winter color	Spring leaves; surface roots; insects	Striking native plants; bright red berries in late fall and winter; appropriate near utility lines.
Durable; wildlife; strong; long lifespan	Very large; significant surface roots	Limit use to areas with large spaces; shading and roots can be a problem.
Edible fruit; wildlife	Brittle wood; disease; insects	Plant with enough room; grows slowly until well established; site specific.
Flower; wildlife; bark texture/color; fall color	Short lifespan; insects; diseases	Bright white flowers and edible fruit; appropriate near utility lines; a number of species are adaptable.
Flower; fall color	Short lived; requires good soil	Several redbuds are available; showier in clusters; appropriate near utility lines.
Flower; foliage; texture	Young foliage and stems and fruit are toxic to humans and livestock	Transplant small seedlings in winter; excellent nectar plant for hummingbirds.
Colorful seed; flowers	Disease; short lifespan	Good for many soils; excellent spring and fall color.
Wildlife; shape	Fruit drop; large mature size	Healthy attractive tree with fall color and nice shape; not suitable for heavy clay soils.
Fall color; peeling bark	Shallow roots	Some problems with aphids, powdery mildew and leaf spots.
Fragrant flowers; wildlife; fall color; attractive trunk	Roots susceptible to damage during transplanting	Good for naturalistic setting; performs best in slightly acid soil.
Fall color; dry soils; wildlife	Suckers and forms clumps	Good for naturalistic settings, but needs high light; tolerates poor soils; excellent fall color.
Flower; wildlife	Short lifespan	Excellent tolerant specimen; outstanding spring blooms; needs drainage; appropriate near utility lines.
Wildlife; fall color (species specific); fine texture; clean	Thorny; insects	Several produce fruit used for making jellies; make excellent hedges and hedgerows.
Wildlife; flower; foliage	Fruit and leaf drop; creates heavy shade	Louisiana state flower; long lifespan.
Attractive foliage	Site selective	Attractive dense dark green needles.
Flowers; wildlife; attractive trunk; fall color	Slow growth; difficult to transplant.	Adapts well to a variety of soils; late winter bird food; butterfly larvae food.
Fragrant flowers; wildlife	Performance is very site specific	Leaves have lovely white undersides.
 Bark texture/color	Leaf and fruit drop	Provide plenty of room and moist site.
 Good shade tree; wildlife; fall color	Powdery mildew	Many have handsome corky branches.
Shape; texture; leaf color	Few problems	Fast growing shade tree with good form.

## NATIVE LANDSCAPE TREES



Taxodium distichum

Louisiana state tree. Tall deciduous conifer with fine-textured leaves of lime green in spring to deep rust in fall. Suitable for wet sites.

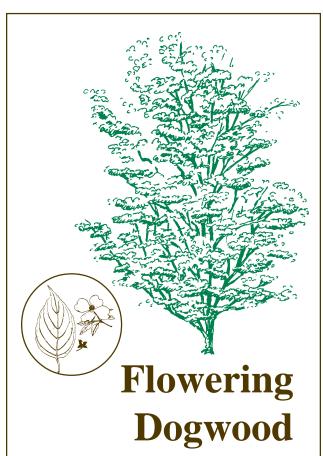


# Eastern **Red Cedar**

Juniperus virginiana

Medium-sized tree with evergreen foliage and attractive fruit. Good for wildlife, very durable. Best in high pH soils.





Cornus florida

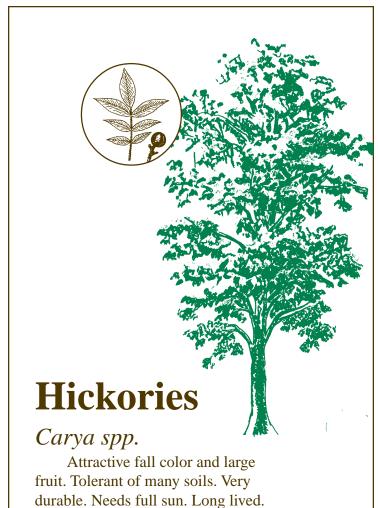
Small flowering tree, with attractive green foliage and red fruit that attracts wildlife.





Chionanthus virginicus

One of spring's handsomest small trees, good for variety of wildlife



soils.

## **Hollies**

## *Ilex spp.*

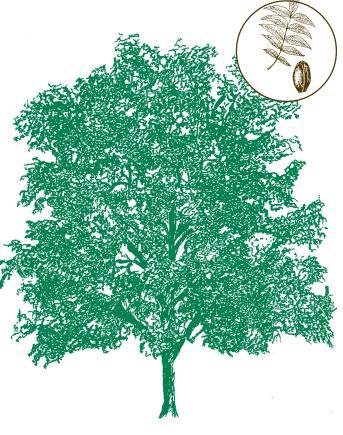
Small to medium-sized.
Often multi-trunked; females retain red berries all winter.
Includes: American holly, deciduous holly and East Palatka holly.



## Pecan

## Carya illinoinsis

Large rounded tree with compound leaves and a thick straight trunk. Edible fruit. Brittle limbs in storms. Grows on many sites.

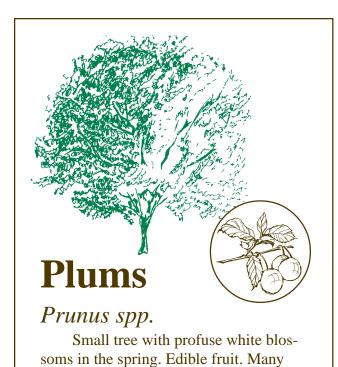


## Live Oak

## Quercus virginiana

Very popular native evergreen with broad branching structure. Moderate early growth, long lived. Not suitable for small yards.



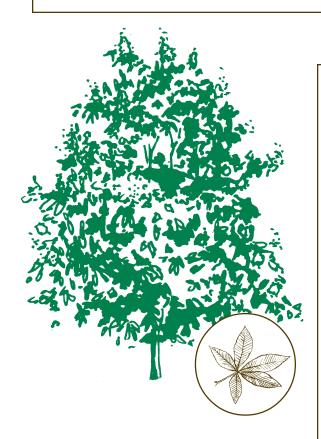


Redbud

Cercis canadensis

Small deciduous tree with clus-

Small deciduous tree with clustered white to purple blooms in early spring. Relatively short lived.

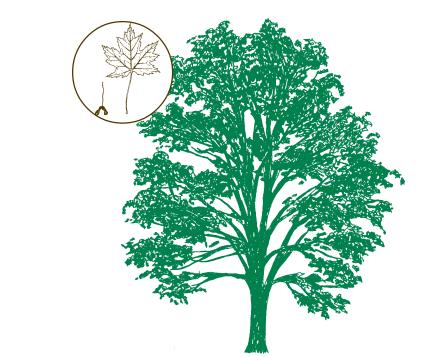


species.

# **Red Buckeye**

### Aesculus pavia

Small tree with red tubular flowers good for hummingbirds. Its pretty seeds are very poisonous.

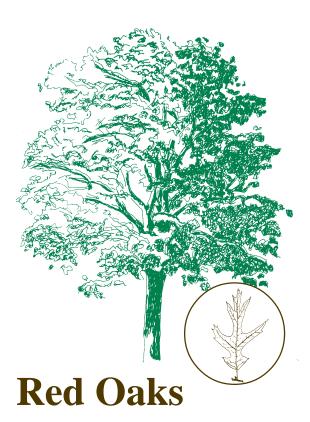


# **Red Maple**

### Acer rubrum

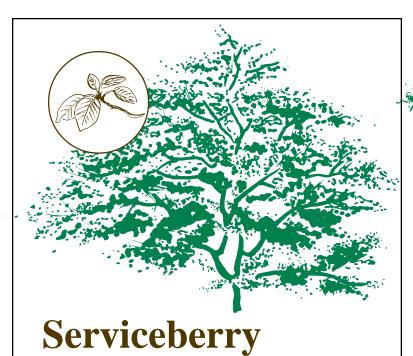
A good tree for most soils with outstanding fall color and spring flowers. Fast growing.

Acer rubrum var. drummondii is best for south Louisiana.



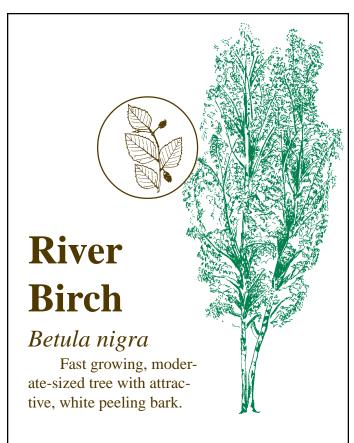
### Quercus spp.

Large, upright columnar natives with good form. Medium to fast growers. Includes nuttall oak, cherrybark oak and Shumard oak.



## Amelanchier arborea

Small tree with early spring flowers and good fall color. Attracts several species of birds in mid-summer.

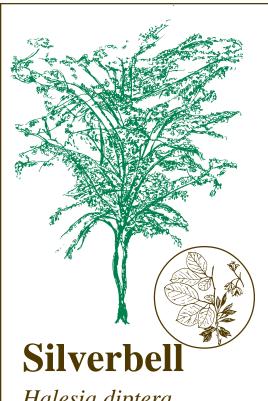




# **Shining Sumac**

## Rhus copallina

Small, coarse-textured tree with outstanding fall color on drier sites. Fast growth. Adapts well to variety of soils. Best in full sun.



Halesia diptera

Small tree noted for outstanding spring flowers and foliage. Moderate to fast growth.



Crataegus spp.

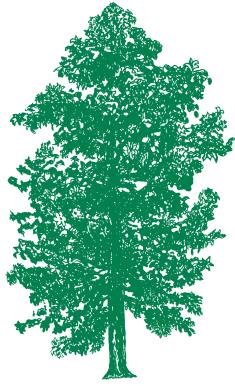
Small shrubby trees that are excellent habitat for nesting birds. Fruit attracts wildlife. Best fruiting in full sun. Slow to moderate growth.

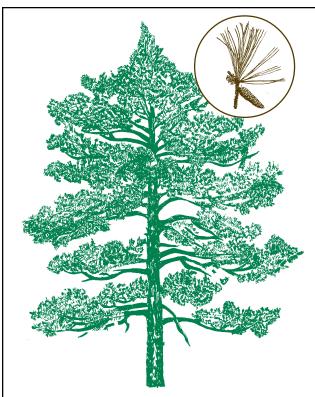
# Southern Magnolia

## Magnolia grandiflora

Large evergreen tree with a spreading canopy which offers dense shade and very attractive flowers and fruit. Magnolia is state flower of Louisiana.



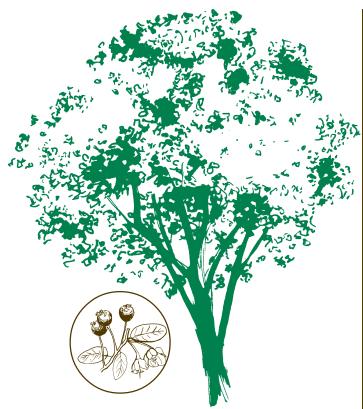




## **Southern Pines**

Pinus spp.

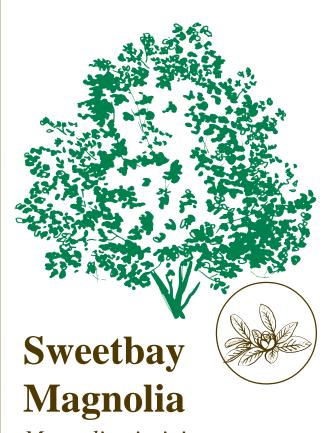
Large evergreen trees with dense green foliage and attractive shape. Best in acid soils. Includes: spruce pine, loblolly pine, slash pine and longleaf pine.



# **Sparkleberry**

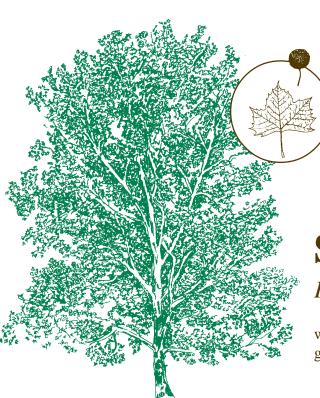
### Vaccinium arboreum

Small attractive tree favored by wildlife, especially birds. Excellent understory tree or in full sun.



## Magnolia virginiana

Medium -sized tree that is good for wet sites. Foliage interest. Lemon-scented flowers in late spring.



# **Sycamore**

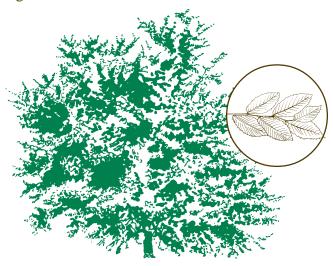
### Platanus occidentalis

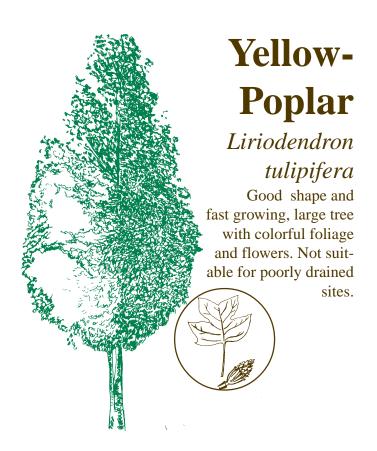
Very large, rounded tree known for its white peeling bark and large leaves. Fast growth.

## Winged Elm

### Ulmus alata

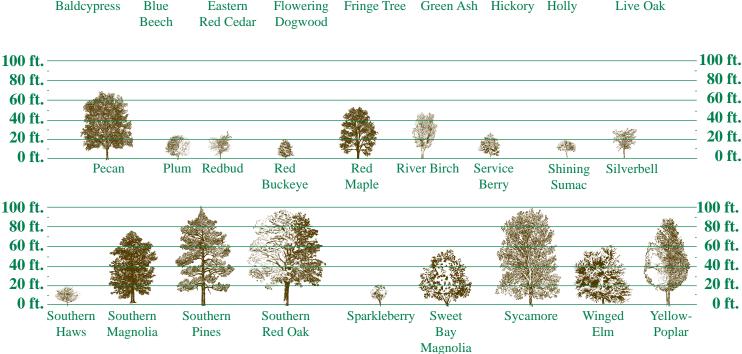
Small to medium tree with interesting bark and fine texture. Fast growth. Tolerates environmental stress.





## **Tree Height and Spread Comparisons:**





# This poster was developed to help the citizens of Louisiana preserve and enhance their beautiful trees.

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For more information, contact your:

LSU AgCenter Parish Office

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visit our Web site: www.lsuagcenter.com

### **Suggested List of Native Trees for Landscaping**

These lists provide a general guide for tree selection. They do not imply that the species listed are the only ones worthy of consideration in each category.

Baldcypress

River Birch

Shumard Oak

Winged Elm

Parsley Hawthorn

Shagbark Hickory

Southern Magnolia

Sweetbay Magnolia

Wax Myrtle

Ironwood

Green Ash

**Fast Growing Shade Trees** 

**Trees With Interesting Trunks** 

(up to a certain size)

American Elm

Cottonwood

Red Maple

Sycamore Water Oak

Mayhaw

River Birch

White Oak

Sugarberry

Live Oak

Red Cedar

Southern Pines

**Evergreen Trees** 

Trees	Pre	ferring	an A	Acid	Soil

American Beech Flowering Dogwood

Fringe Tree Holly

Red Maple Southern Magnolia

Sourwood Sassafras

Southern Pines

#### **Trees Tolerating Dry Conditions**

Winged Sumac Catalpa
Green Ash Loblolly Pine
Persimmon Red Cedar
Possumhaw Holly Red Oaks
Sweetgum Deciduous Holly

#### **Medium to Large Flowering Trees**

Catalpa Honey Locust
Red Maple Sourwood
Southern Magnolia Sassafras
Silverbell Yellow-Poplar
Witch Hazel Sweetbay Magnolia
Big Leaf Magnolia

### **Small Flowering Trees**

Crab Apple Dogwood
Flowering Plum Fringe Tree
Mayhaw Snowbell
Redbud Silverbell
Serviceberry Sparkleberry

#### Trees Tolerating Less Than Ideal Drainage

Baldcypress Holly
Mayhaw Parsley Hawthorn
Persimmon Red Maple
River Birch Roughleaf Dogwood
Sweetgum Wax Myrtle

#### Trees with Attractive Berries or Fruit

Black Cherry
American Holly
Dahoon Holly
Mayhaw
Parsley Hawthorn
Possumhaw Holly
Sparkleberry

Carolina Buckthorn
Crab Apple
Deciduous Holly
Flowering Dogwood
Persimmon
Red Maple

#### Trees with Edible Fruit or Seeds

Crab Apple Hickory
Mayhaw Plum
Persimmon Pecan

### **Trees Frequently Providing Good Fall Color**

American Beech
Black Gum
Cypress
Flowering Pear
Hickory
Red Oak
Sumac
Sweetgum
Vinged or Cedar Elm
Cypress
Flowering Dogwood
Flowering Dogwood
Sourwood
Sourwood
Surwood
Surwo

Trees That Attract Birds

Black Cherry Black Gum
Hawthorns Flowering Dogwood
Persimmon Red Cedar
Sassafras Sparkleberry
Sugarberry Wax Myrtle
Southern Magnolia

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