

Lafayette Native Landscaping Guide

NATIVE SPECIES
PLANTING PALETTE

Prepared for Lafayette
Consolidated Government
by
Tree Amis, LLC

Special thanks to the
Acadiana Native Plant Project
for input on this document.

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Native Plant Communities

Landscaping with **native plants**—those naturally adapted to a region’s soils, climate, and ecological conditions—offers one of the most effective ways to restore balance between the built and natural environments. Native plantings help cities thrive by supporting biodiversity, conserving resources, and creating healthier, more livable spaces for people and wildlife alike.

Native species are **uniquely suited to local conditions**, requiring less irrigation, fertilizer, and maintenance than many exotic ornamentals. Their deep-rooting systems improve soil structure, enhance stormwater infiltration, and reduce runoff—key benefits in cities prone to flooding or heat stress. In addition, native landscapes provide essential habitat and food sources for pollinators, songbirds, and other urban wildlife, helping to reconnect fragmented ecosystems within the urban environment.

Beyond ecological function, native plantings contribute to the **character and identity of a place**. They reflect the natural heritage of a region, fostering a sense of belonging and stewardship among residents. When thoughtfully integrated into parks, streetscapes, greenspaces, and private property, native plantings can transform the urban environment into a more resilient, vibrant, and regenerative system.

Landscaping with native plants is not simply an aesthetic choice—it is a **critical strategy for urban sustainability** and climate adaptation. As cities continue to expand development and urban areas grow denser, the need for resilient landscapes is vital. By choosing native vegetation, cities can conserve water, reduce maintenance costs, support biodiversity, and enhance the overall well-being of their communities.



Planting for Success

Thoughtful planning and proper installation are essential to creating healthy, resilient landscapes. The following principles support long-term success for native and adapted plantings in urban environments.

01

Species Selection

Choose the right plants for the right place. Consider mature size, sun and shade exposure, soil type, moisture levels, and site constraints. Prioritize native and climate-adapted species suited to local conditions and intended landscape function.

02

Plant Sourcing

Source plants from local or regional nurseries when possible. Select healthy plant material with well-developed root systems, appropriate sizing, and no signs of disease. Locally grown plants are often better adapted to regional soils and climate.

03

Proper Installation

Install plants at the correct depth, ensuring root flares (where base of stem meets primary roots) are not buried. Loosen circling roots, backfill with native soil where feasible, and water thoroughly after planting to eliminate air pockets.

04

Dress for Success

Apply organic mulch or compost evenly at a 2–4 inch depth, keeping away from stems and trunks to prevent disease. Mulch improves soil health, moderates temperature, suppresses weeds, and retains soil moisture – it should be refreshed annually.

05

Landscape Protection

Protect new plantings from foot traffic, lawn equipment, and maintenance impacts. Use clear edging, signage, or protective barriers as needed to prevent damage and allow plants time to establish.

06

Establishment Watering

Develop a watering plan to support establishment. Most new plantings require consistent moisture during the first growing season, with supplemental watering during drought. Adjust irrigation based on plant needs, soil conditions, and weather patterns.

Native Species Ratio

GOAL

75% : 25%

Native plants : Non-native plants

Balances ecological resilience with operational, aesthetic, and infrastructure constraints.

Trees

Target 70–80% native

Allow select non-native cultivars only when:
Native options are unavailable
Site constraints are severe
Species diversity rules (i.e., 10–20–30) are met

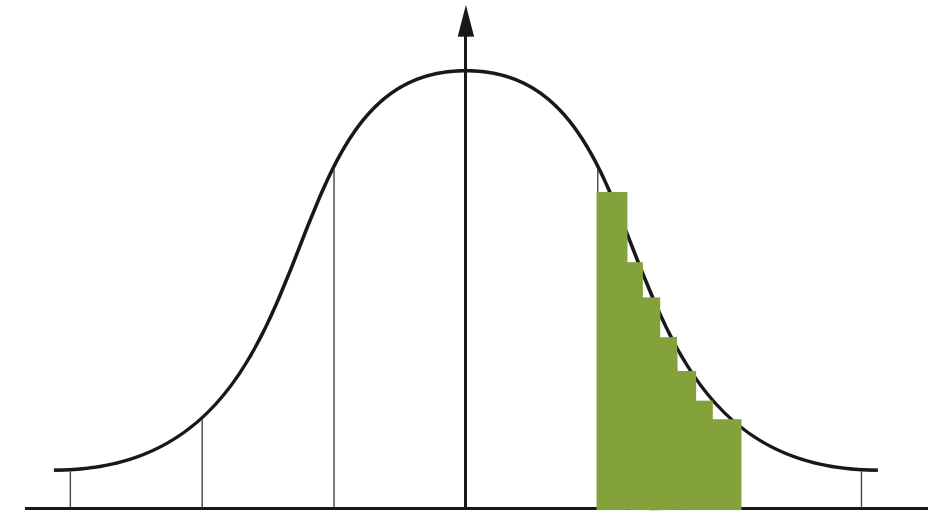
Shrubs, Grasses, Perennials

Target 80–90% native

These layers drive most of the biodiversity and resilience gains

Non-Natives should be:

Non-invasive
Low-water, low-input
Not ecologically disruptive



Why this ratio works

Research consistently shows that functional ecosystem benefits increase sharply once native plant cover exceeds ~70%.

Native plants:

- Support local pollinators, birds, and soil microbes
- Are adapted to local climate extremes (heat, drought, floods)
- Require less irrigation, fertilizer, and pesticide once established
- Food web stability improves resistance to pests and disease
- Landscapes recover faster after heat waves, freeze events, and floods
- Disturbances are localized rather than system-wide
- Species diversity buffers against single-pest or pathogen issues

Retaining 15–30% non-native (non-invasive) species allows for landscape functionality while not reducing its resilience.

Non-native (non-invasive) plants:

- Use of long-proven urban-tolerant plants
- Seasonal interest where native options are limited
- Compatibility with utilities, sightlines, and compacted soils
- Gradual transition from legacy landscapes



CARBO landscape architecture

Plant Palette Examples

Plant Palette: Example 1

Plant Palette:

A curated group of compatible native trees, shrubs, grasses, and perennials selected to work together under specific site conditions.

Common Name
Species

Nuttall Oak

Quercus texana

Sweetbay Magnolia

Magnolia virginiana

Wax Myrtle

Myrica cerifera

Gulf Muhly

Muhlenbergia capillaris

Blanket Flower

Gaillardia

Cultivars & Alternatives

Willow Oak
Shumard Oak
Southern Red Oak

'Evergreen'
'Green Shadow'

Dwarf Palmetto
Inkberry
Yaupon Holly

Little Bluestem
Bushy Bluestem
American Beautyberry

Texas Coneflower
Plains Coreopsis
Obedient Plant

Flowering/
Leaf Loss

Deciduous

Semi-Evergreen

Evergreen

June - December

July-September

Species Comments

Large shade tree highly adaptable to urban conditions.

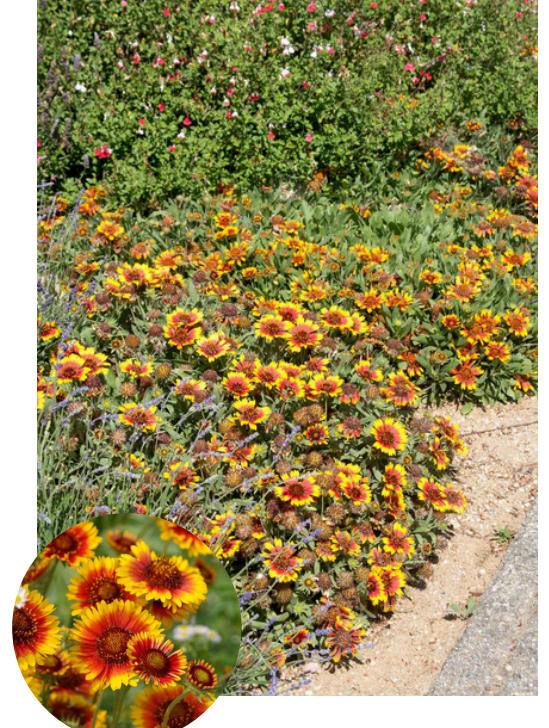
Slender tree available in small and medium varieties.

Tends to root sucker, used as a shrub or hedge. Beautiful blue berries.

An easy-to-grow grass. Full sunlight results in more color.

Varieties are popular in cultivation. Heat and drought tolerant.

Common Form



Trait Highlight

Plant Palette: Example 2

Plant Palette:





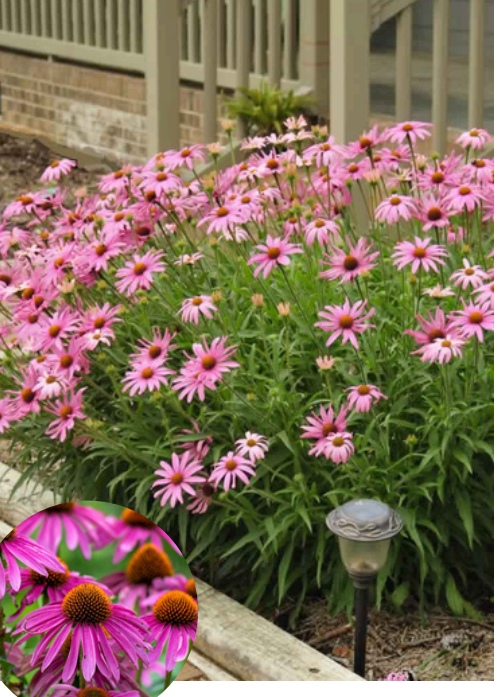





A curated group of compatible native trees, shrubs, grasses, and perennials selected to work together under specific site conditions.

Common Name Species	Southern Live Oak <i>Quercus virginiana</i>	Southern Sugar Maple <i>Acer floridanum</i>	Dahoon Holly <i>Ilex cassine</i>	Rattlesnake Master <i>Eryngium yuccifolium</i>	Southern Shield Fern <i>Dryopteris ludoviciana</i>
Cultivars & Alternatives	Southern Magnolia Cherrybark Oak Baldcypress	Sweetbay Magnolia Black Tupelo	Red bay Possumhaw Holly Mayhaw	Gulf Muhly Louisiana Iris American Beautyberry	Cherokee Sedge Frogfruit
Flowering/ Leaf Loss	Semi-Evergreen	Deciduous	Evergreen	May-August	Evergreen
Species Comments	Magnificent shade tree for large areas with a broad spreading canopy.	Good in hurricane-prone areas due to its strong limbs and smaller size.	Relatively pest and disease-free with naturally formal shape.	Works well in small groups and adapts to many soil types.	Versatile plant best used in shady, moist landscapes.
Common Form					
Trait Highlight					

Plant Palette: Example 3

Plant Palette:

A curated group of compatible native trees, shrubs, grasses, and perennials selected to work together under specific site conditions.

Common Name Species	<p>Swamp Chestnut Oak <i>Quercus michauxii</i></p>	<p>River Birch <i>Betula nigra</i></p>	<p>Buttonbush <i>Cephalanthus occidentalis</i></p>	<p>Louisiana Iris <i>Iris spp.</i></p>	<p>Purple Coneflower <i>Echinacea purpurea</i></p>
Cultivars & Alternatives	<p>Swamp White Oak Cherrybark Oak Willow Oak</p>	<p>'Heritage' American Beech Sweetbay Magnolia</p>	<p>Turk's Cap American Beautyberry Mayhaw</p>	<p>Scarlett Sage Rattlesnake Master Texas Coneflower</p>	<p>Obedient Plant Black-eyed Susan Plains Coreopsis</p>
Flowering/ Leaf Loss	<p>Deciduous</p>	<p>Deciduous</p>	<p>Deciduous</p>	<p>March - May</p>	<p>April-September</p>
Species Comments	<p>Adaptable for urban conditions. Makes a great shade tree.</p>	<p>The most culturally adaptable and heat tolerant of the birches.</p>	<p>Adaptable to many soils, Tolerant of heat and soil compaction.</p>	<p>Native iris species and their hybrids, known for beauty and reliability.</p>	<p>Showy, easily grown garden plant with many available varieties.</p>
Common Form					
Trait Highlight					



Nebraska Statewide Arboretum

Native Landscaping Recommendations

Species Selection: Green Groundcovers

Height Level



Common Name
Species

Southern Shield Fern
Dryopteris ludoviciana

Buffalograss
Bouteloua dactyloides

Leavenworth's Sedge
Carex leavenworthii

Frogfruit
Phyla nodiflora

Cherokee Sedge
Carex cherokeensis

Height

2-4ft tall

4-8" tall

6" - 16" tall

3-6" tall

1-2ft tall

Leaf Loss

Evergreen

Semi-evergreen

Semi-evergreen

Semi-evergreen

Evergreen

Comments

Versatile plant best used in shady, moist landscapes.

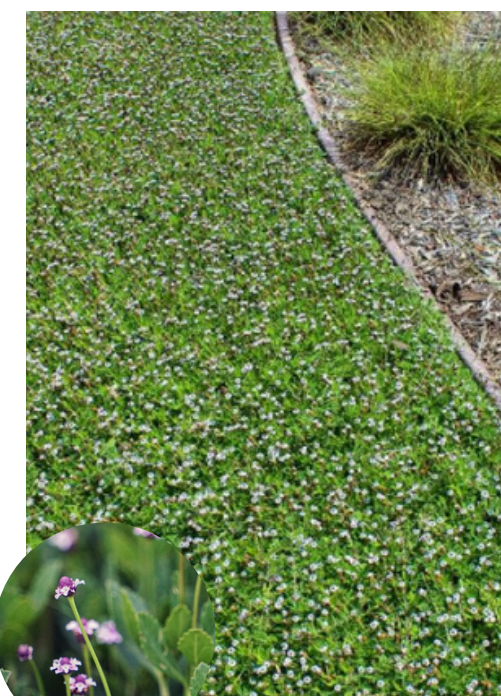
Suitable for lawn use, drought tolerant, and widely available.

Adaptable clumping sedge. Heat and drought tolerant once established.

Flowering groundcover that spreads vigorously.

Clumping plant, grows best in moist soils and shade to full sun.

Common Form



Trait Highlight



Species Selection: Flowering Perennials

Height Level



Common Name
Species

Blanket Flower

Gaillardia pulchella

Coreopsis Sp.

Coreopsis Sp.

Wild Bergamot

Monarda fistulosa

Purple Coneflower

Echinacea purpurea

Black-eyed Susan

Rudbeckia hirta

Height

1.5-2ft tall

1-2ft tall

2-5ft tall

2-4ft tall

1-2ft tall

Flowers

May - August

April - June

May - September

April - September

June - October

Comments

Varieties are popular in cultivation. Heat and drought tolerant.

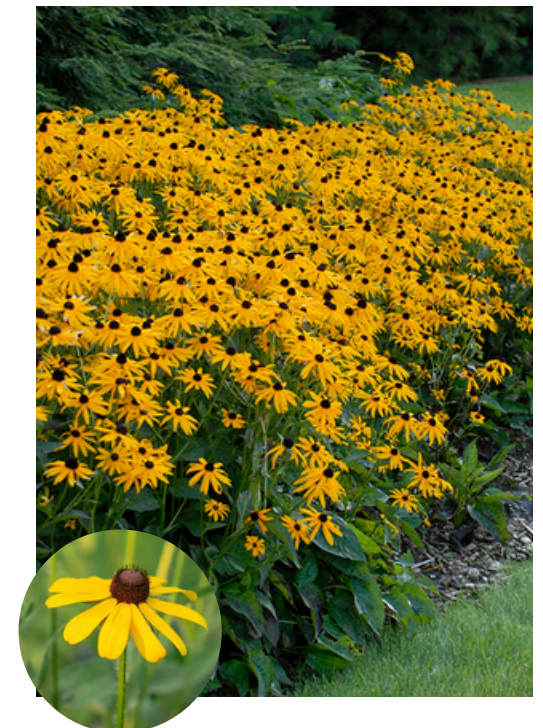
Varieties available. Grows in small clumps but forms extensive colonies.

Popular and showy perennial with available cultivars.

Showy, easily grown garden plant with many available varieties.

Fast growing plant with numerous cultivars available.

Common Form



Trait Highlight

Species Selection: Vertical Interest

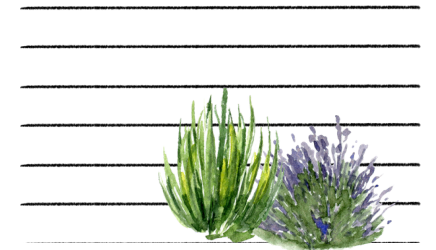
Height Level



Common Name Species	Rattlesnake Master <i>Carex cherokeensis</i>	Louisiana Iris <i>Iris spp.</i>	Scarlet Sage <i>Salvia coccinea</i>	Giant Coneflower <i>Rudbeckia maxima</i>	Obedient Plant <i>Physostegia virginiana</i>
Height	Up to 6ft tall	2-6ft tall	1-3ft tall	Up to 7ft tall	Up to 5ft tall
Flowering	May-August	March- May	February-October	July-September	August-November
Comments	Works well planted in small groups and adapts well to many soil types.	A group of native iris species and their hybrids, known for their beauty and reliability.	A continuous bloomer and showy perennial with many available cultivars.	An easy-going plant that tolerates light shade, heat, some drought.	Adaptable and tolerates drought and poor drainage. Easy to establish.
Common Form					
Trait Highlight					

Species Selection: Bushy Grasses

Height Level



Common Name
Species

Little Bluestem

Schizachyrium scoparium

Gulf Muhly

Muhlenbergia capillaris

Eastern Gamagrass

Tripsacum dactyloides

Switchgrass

Panicum virgatum

Bushy Bluestem

Andropogon glomeratus

Height

2-5ft

2-5ft

Up to 8ft tall

3-6ft tall

2-6ft

Flowering

June-December

October-November

April-June

August-November

August-November

Species Comments

Bunching grass with interesting color in the spring and winter.

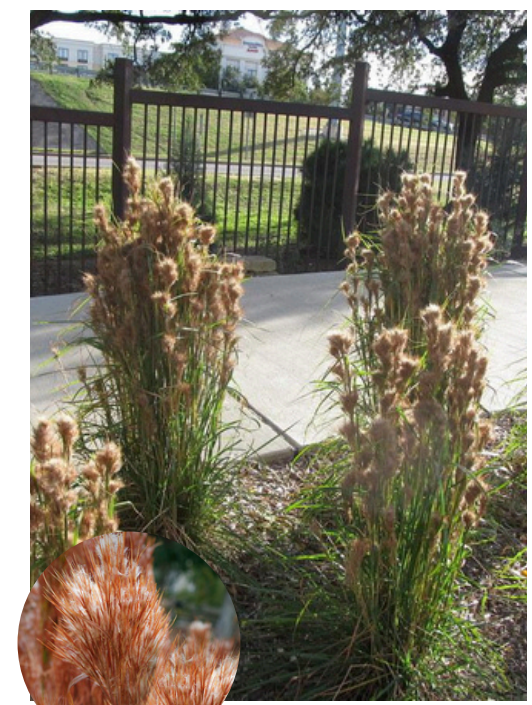
An easy-to-grow grass. Full sunlight results in more color.

Bunching grass known for its deep roots and low water needs.

Adaptable clumping grass for a wide range of sites.

Clump-forming grass with interesting summer and winter foliage.

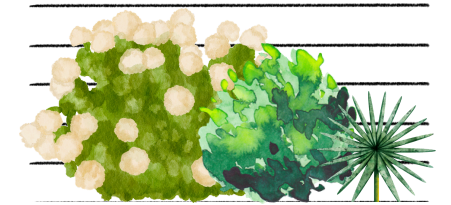
Typical Form


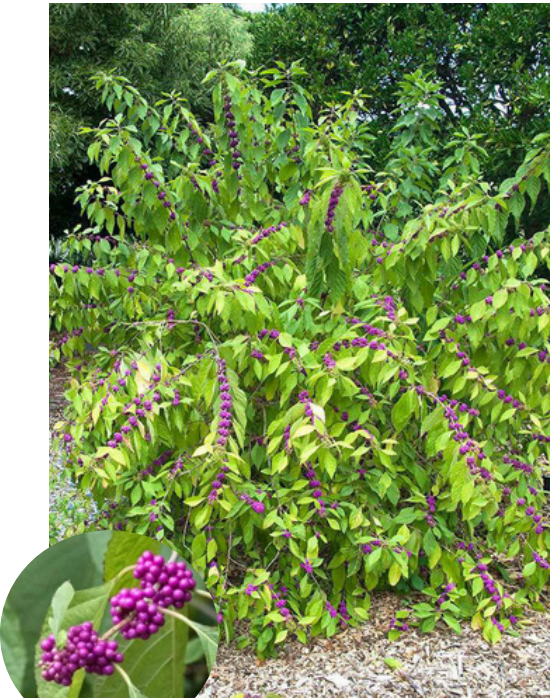






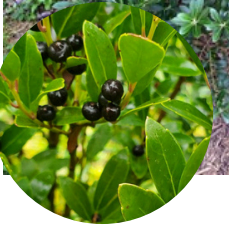



Trait Highlight

Species Selection: Shrub-Like Understories

Height Level



Common Name Species	Dwarf Palmetto <i>Sabal minor</i>	American Beautyberry <i>Callicarpa americana</i>	Turk's Cap <i>Malvaviscus arboreus</i> var. <i>drummondii</i>	Inkberry <i>Ilex glabra</i>	Buttonbush <i>Cephalanthus occidentalis</i>
Height	5-10ft tall	3-6ft tall	2-8ft tall	6-12ft	6-12ft tall
Leaf Loss	Evergreen	Deciduous	Deciduous	Evergreen	Deciduous
Species Comments	Very adaptable once established and does well as a specimen in understory plantings.	Large understory shrub with loose and graceful arching form, fruiting in the fall and winter.	Best as an understory shrub, can tolerate full sun. Red or pink flowers in summer and fall.	A colony-forming shrub with multiple cultivars available. Tolerates moist, occasionally wet soil.	Adaptable to many soils, except for dry ones. Tolerant of heat and soil compaction.
Typical Form					
Trait Highlight					

Invasive Species: DO NOT PLANT!

Invasive Plant:
Non-native species that spread rapidly, outcompete native plants, and disrupt natural systems.

Common Name
Species

Elephant Ear

Colocasia esculenta

Yellow Flag Iris

Iris pseudacorus

Coral Ardesia

Ardisia crenata

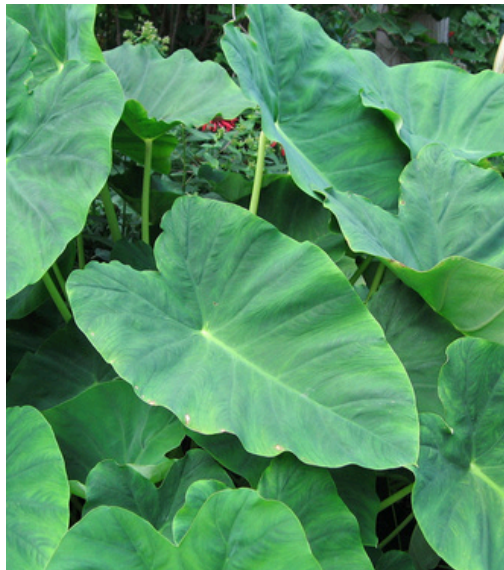
Cherokee Rose

Rosa laevigata

Monkey Grass

Liriope muscari

Typical Form



Common Name
Species

Nandina

Nandina domestica

Chinese Wisteria

Wisteria sinensis

Autumn Olive

Elaeagnus umbellata

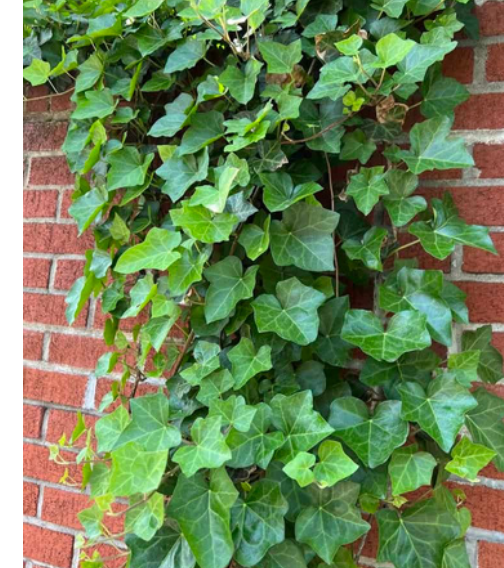
English Ivy

Hedera helix

Chinese Privet

Ligustrum sinense

Typical Form






University of Louisiana at Lafayette

Tree Species Recommendations




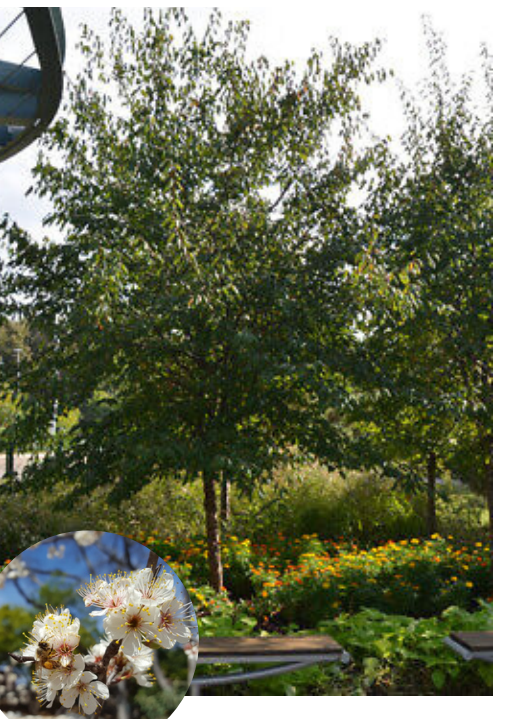






Species Selection: Small Trees (Shrub-like)

Streetscapes:
 Small soil areas (300-600 cubic ft)
 Under overhead utilities
 Over underground utilities (not water)
 For aesthetic use, not shade

Common Name Species	<p>Wax Myrtle <i>Myrica cerifera</i></p>	<p>Yaupon Holly <i>Ilex vomitoria</i></p>	<p>Possumhaw Holly <i>Ilex decidua</i></p>	<p>Common Serviceberry <i>Amelanchier arborea</i></p>	<p>Swamp Titi <i>Cyrilla racemifolia</i></p>
Cultivars & Alternatives	<p>Dwarf wax myrtle 'Little Gem' Magnolia 'Teddy Bear' Magnolia</p>	<p>'Aurea' 'Bordeaux' 'Jewel'</p>	<p>'Byer's Golden' 'Finch's Golden' 'Warren's Red'</p>	<p>Canadian Serviceberry Mayhaw</p>	<p>Black Titi 'Chipola Pink'</p>
Leaf Loss	Evergreen	Evergreen	Deciduous	Deciduous	Deciduous
Comments	<p>Tends to root sucker, used as a shrub or hedge. Beautiful blue berries.</p>	<p>Often used as a shrub. Can form thickets if root suckers not removed.</p>	<p>Works especially well as a winter accent.</p>	<p>Blooming small tree to large shrub. Grows best in moist, well-drained soils.</p>	<p>Blooming small tree or shrub with fragrant flowers. Can form thickets.</p>
Common Form					
Trait Highlight					











Species Selection: Small Trees

Streetscapes:
 Small soil areas (300–600 cubic ft)
 Under overhead utilities
 Over underground utilities (not water)
 For aesthetic use, not immediate shade

Common Name Species	American hornbeam <i>Carpinus caroliniana</i>	Dahoon Holly <i>Ilex cassine</i>	Eastern Redbud <i>Cercis canadensis</i>	Mexican Plum <i>Prunus mexicana</i>	American Fringetree <i>Chionanthus virginicus</i>
Cultivars & Alternatives	Eastern Hop-hornbeam 'Native Flame' 'Palisade'	'Angustifolia'	'Carolina Sweetheart' 'Flame Thrower' 'Forest Pansy'	Chickasaw Plum 'Guthrie' American plum	'Spring Fleecing' 'Prodigy'
Leaf Loss	Deciduous	Evergreen	Deciduous	Deciduous	Deciduous
Species Comments	Unique tree, ideal for shaded landscapes. Sensitive to stress.	Versatile evergreen tree, relatively pest and disease-free.	Showy pink blooms in February to early March. Sensitive to herbicides.	Produces fragrant white flowers in early spring. Supports native bees.	Prolific white flowers in early summer. Some susceptibility to pests.
Typical Form					
Trait Highlight					











Species Selection: Medium Trees

Streetscapes:
6-7ft planting width
900-1,200 cubic ft soil volume
(No overhead utilities)

Common Name Species	<p>Cherry Laurel <i>Prunus caroliniana</i></p>	<p>Attenuata Hollies <i>Illex x attenuata</i></p>	<p>American Holly <i>Illex opaca</i></p>	<p>Redbay Tree <i>Tamala borbonia</i></p>	<p>Sweetbay Magnolia <i>Magnolia virginiana</i></p>
Cultivars & Alternatives	'Bright 'N' Tight' Black Cherry	'Savannah' 'Foster' 'Eagleston'	'Liberty' 'Greenleaf' 'Judy Evans'	Swamp bay	'Evergreen' 'Green Shadow' 'Silver Mist'
Leaf Loss	Evergreen	Evergreen	Evergreen	Evergreen	Semi-Evergreen
Species Comments	Fragrant white flowers. Can self-seed into surrounding landscapes.	Hybrids of Dahoon x American holly, grows in specific forms.	Ideal for privacy screens, barriers, and hedges as a large shrub.	Adaptable tree or large shrub with fragrant leaves.	Slender tree available in small and medium varieties.
Typical Form					
Trait Highlight					




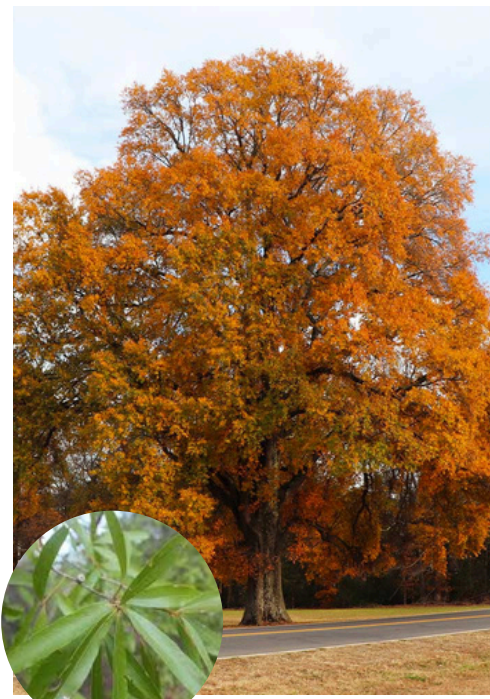






Species Selection: Medium Trees (+)

Streetscapes:
7-9 ft planting width
900-1,200 cubic ft soil volume
No overhead or underground utilities

Common Name Species	River Birch <i>Betula nigra</i>	Southern Sugar Maple <i>Acer floridanum</i>	Winged Elm <i>Ulmus alata</i>	Black Tupelo <i>Nyssa sylvatica</i>	Eastern Red Cedar <i>Juniperus virginiana</i>
Cultivars & Alternatives	'Heritage' American Beech	Red Maple Sugar Maple Swamp Red Maple	Cedar Elm American Elm Slippery Elm	'Afterburner' 'Fire Starter' 'Sparkler'	'Taylor' 'Brodie'
Leaf Loss	Deciduous	Deciduous	Deciduous	Deciduous	Evergreen
Species Comments	Adaptable and heat tolerant tree. *Requires root barrier.	A good plant in hurricane-prone areas due to its strong limbs and smaller size.	A sturdy, fast growing tree. Adaptable to urban stressors.	Tolerant of compacted soils, poor drainage, and drought.	Strong, low maintenance tree that is tolerant of many soil types.
Typical Form					
Trait Highlight					

Species Selection: Large Trees

Streetscapes:
10+ ft planting width
1,500+ cubic ft soil volume
No overhead or underground utilities

Common Name Species	<p>Southern Magnolia <i>Magnolia grandiflora</i></p>	<p>Nuttall Oak <i>Quercus texana</i></p>	<p>Swamp Chestnut Oak <i>Quercus michauxii</i></p>	<p>Willow Oak <i>Quercus phellos</i></p>	<p>Southern Live Oak <i>Quercus virginiana</i></p>
Cultivars & Alternatives	<p>'DD Blanchard' 'Alta' (Dwarf) 'Little Gem' (Dwarf)</p>	<p>Cherrybark Oak Shumard Oak Southern Red Oak</p>	<p>Swamp White Oak Bur Oak Overcup Oak</p>	<p>'High Tower' 'Ascendor' Laurel Oak</p>	<p>'Cajun' 'Cathedral' 'Joan Lionetti'</p>
Leaf Loss	Semi-Evergreen	Deciduous	Deciduous	Deciduous	Semi-Evergreen
Species Comments	<p>Leaf drop in both fall and spring. Leaves can be chopped to recycle nutrients.</p>	<p>This large shade tree is highly adaptable to urban conditions and does well as a street tree.</p>	<p>An adaptable tree for urban conditions and makes a great shade tree.</p>	<p>An adaptable to a variety of soil types and is tolerant of urban pollution.</p>	<p>It makes a magnificent shade tree for large areas with a broad spreading canopy.</p>
Typical Form					
Trait Highlight					


Species Selection: Park Trees

Parks:
Open greenspaces
1,500+ cubic ft soil volume
No overhead or underground utilities

Common Name Species	Southern Sugarberry Celtis laevigata	American Sycamore Platanus occidentalis	Pignut Hickory Carya glabra	Bald Cypress Taxodium distichum	Loblolly Pine Pinus taeda
Cultivars & Alternatives	Hackberry American Beech Green Ash	American Sweetgum Tulip-Poplar Southern Catalpa	Bitter Pecan Mockernut Hickory Shagbark Hickory	Pond Cypress Montezuma Cypress Atlantic White Cedar	Spruce Pine Longleaf Pine Shortleaf Pine
Leaf Loss	Deciduous	Deciduous	Deciduous	Deciduous	Evergreen
Species Comments	Tree with broad, rounded, open crown of spreading or slightly drooping branches.	Fast-growing tree with wide spreading, open crown and distinctive bark.	Strong, tall tree with a straight trunk and dense rounded crown.	Ideal for wet areas, with fall color and unique fruit cones.	Fast-growing versatile tree with evergreen needles. Best planted in groupings.
Typical Form					
Trait Highlight					

Species Selection: Park Trees

Parks:
Open greenspaces
1,500+ cubic ft soil volume
No overhead or underground utilities

Common Name Species	Cherrybark Oak <i>Quercus pagoda</i>	Black Cherry <i>Prunus serotina</i>	American Sweetgum <i>Carya glabra</i>	Southern Magnolia <i>Magnolia grandiflora</i>	Southern Live Oak <i>Quercus virginiana</i>
Cultivars & Alternatives	Overcup Oak American Beech Green Ash	Southern sugarberry Tulip-Poplar Southern Catalpa	American Sycamore Red Maple Swamp Chestnut Oak	'DD Blanchard' 'Alta' (Dwarf) 'Little Gem' (Dwarf)	'Cajun' 'Cathedral' 'Joan Lionetti'
Leaf Loss	Deciduous	Deciduous	Deciduous	Evergreen	Semi-Evergreen
Species Comments	Highly valued tree with straight trunk, open crown, and unique dark, scaly bark.	Fast-growing tree with fragrant white spring flowers, and edible black fruit in late summer.	Shade tree known for star-shaped leaves, fall foliage, and prickly fruit balls.	Iconic tree known for massive, fragrant white flowers and glossy, dark green leaves.	Magnificent, long-lived shade tree for large areas with a broad spreading canopy.
Typical Form					
Trait Highlight					

Invasive Trees: DO NOT PLANT!

Invasive Plant:
Non-native species that spread rapidly, outcompete native plants, and disrupt natural systems.

Common
Name
Species

Lacebark Elm

Ulmus parvifolia



Bradford Pear

Pyrus calleryana



Sawtooth Oak

Quercus acutissima



Glossy Privet

Ligustrum lucidum



Mimosa Tree

Albizia julibrissin



Common
Name
Species

Tallow Tree

Triadica sebifera



Parasol Tree

Firmiana simplex



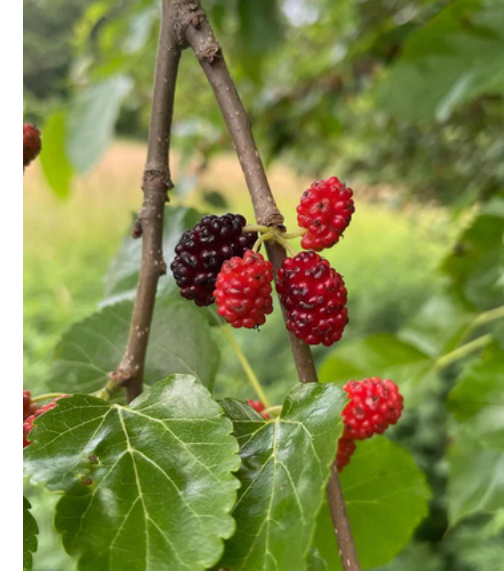
Camphor Tree

Camphora officinarum



White Mulberry

Morus alba



Tree of Heaven

Ailanthus altissima



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LA Arborist Licensed #25-2782
Tree Risk Assessment Qualified