Southern Live Oak

Latin name: Quercus virginiana	Texture: Fine ¹³
Common name: Southern Live Oak	Growth rate: Medium ¹³
Flowers: Yellow, inconspicuous ¹⁷ , catkins 2-3 in. ¹⁰ , blooms March-May ¹⁰	Light: Sun, part-shade ¹⁰
Fruit or cones: Brown ¹⁷ to dark black, 1 in. acorns produced in clusters of 1-5 ⁶	Moisture: Prefers high moisture but tolerates drought ⁶
Height & Width : 40-80 ft. tall and 60-100 ft. wide ⁶	Soil*: Adapted to coarse, fine, & medium textured soils, tolerates a pH between 4.5 and 7.3 ¹⁷
Type: Deciduous ¹⁰	Zones : 8-10 ⁴
Habit: Wide-spreading ⁶ with a broad, rounded canopy ¹⁰	Origin: Native to Utah, Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, and Virginia ¹⁶
Wetland indicator category**: Facultative Upland in Atlantic and Gulf Coastal Plains & Eastern Mountain Piedmont ¹⁷	Ecosystem benefits: Ornamental shade tree, attracts birds, squirrels, and butterflies for shelter and food, timber, medicinally used to treat dysentery (gastrointestinal disease) ¹⁰

(Numbers identify sources listed on page 2-3)

Features: The Live Oak is an outstanding specimen in the landscape. They have massive horizontal limbs that give a majestic appearance⁶. Matured trees are some of the most recognized native trees in South Carolina, often decorated with Spanish moss and resurrection ferns⁶. Live oaks have successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common, and are highly salt tolerant¹³.

Siting: This species forms large root systems and large crowns with age¹⁶, so they need adequate space considering mature height and spread. They are commonly found planted along avenues or drives. In urban areas, matured tree roots can lift sidewalks or streets if planted too close⁶. A great plant for a residential shade tree¹⁰. Considering mature size, useful in large parking lot islands, wide tree lawns, and buffer/median strips¹³.

Care: When transplanted small (not root-bound in pots prior to planting) and given adequate water, live oaks grow rapidly¹⁶. They are tolerant of a wide range of soil moisture, pH, and compaction⁸. Live oaks prefer full sun but can tolerate more shade. Pruning is only necessary in the early years (during mid-late summer) to develop a strong central leader and firm branch structure⁶. Plant so root flare is visible at soil surface¹⁴. At planting, water the root ball daily with two gallons of water per inch of trunk diameter for two weeks, every other day for two months and then weekly until established. Modify water recommendations to reflect site drainage and rainfall. Apply 3" of mulch over the planted area. Do not allow mulch to touch the trunk¹⁴. Give it plenty of room since the trunk can grow to more than six feet in diameter¹³.

Pests: Plants are relatively pest resistant if cultural preferences are met. Scales of several types can be controlled with horticultural oil sprays. Aphids are often naturally taken care of by

predatory insects. Newly planted young trees need to be treated with regular fertilization and water during dry weather to keep as healthy as possible¹³.

This plant does not appear on the following invasive plant lists on (10/20/2023):

- _x_ USDA SC Invasive Plant Species Web site at http://www.invasivespeciesinfo.gov/plants/main.shtml
- _x_ SC Exotic Plant Pest Council Web site at http://www.se-eppc.org/southcarolina/





Image source:

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- (2) Armitage, A. (2006). *Armitage's native plants for North American gardens*. Portland, Oregon: Timber Press.
- (3) Armitage, A. (2008). *Herbaceous perennial plants: A treatise on their identification, culture, and garden attributes.* Athens, GA: University of Georgia.

- (4) Clemson Cooperative Extension Home and Garden Information Center.(2011). Flowers fact sheets. Retrieved from http://www.clemson.edu/extension/hgic/plants/landscape/flowers/
- (5) Clemson Cooperative Extension Home and Garden Information Center.(2011). Groundcovers & vines fact sheets. Retrieved from http://www.clemson.edu/extension/hgic/plants/landscape/groundcovers/
- (6) Clemson Cooperative Extension Home and Garden Information Center. (2011). *Trees.* Retrieved from http://www.clemson.edu/extension/hgic/plants/landscape/trees/
- (7) Clemson Cooperative Extension Home and Garden Information Center. (2011). *Shrubs*. Retrieved from http://www.clemson.edu/extension/hgic/plants/landscape/shrubs/
- (8) Dirr, M. A. (2009). Manual of woody landscape plants. Champaign, IL: Stipes Publishing.
- (9) Gilman, E. F. (1997). *Trees for urban and suburban landscapes*. Albany, NY: Delmar Publishers.
- (10) Lady Bird Johnson Wildflower Center University of Texas at Austin. (2012). *Native plant information network*. Retrieved from http://www.wildflower.org/explore/
- (11) McMillan, P., Plant taxonomist Clemson University, personal communication.
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- (13) North Carolina State University (2005). *Plant fact sheets*. Retrieved from http://www.ces.ncsu.edu/depts/hort/consumer/factsheets/index.html
- (14) Strother, E. V., Ham, D. L., Gilland, L. (2003) *Urban tree species guide: Choosing the right tree for the right place.* Columbia, SC: South Carolina Forestry Commission.
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 Retrieved from http://edis.ifas.ufl.edu/department_envhort-trees
- (16) USDA. Plant profile. (n/d).Retrieved from http://plants.usda.gov/java/
- (17) USDA. *Plant wetland indicator status.* (n/d). Retrieved from http://plants.usda.gov/wetland.html
- (18) Vincent, E., Environmental horticulturist Clemson University, personal communication.
- (19) Clemson Extension. Carolina Yards Plant Database. Retrieved from https://www.clemson.edu/extension/carolinayards/plant-database/index.html

Choosing the Right Tree for the Right Place

^{**2012} Plant Wetland Indicator categories (quantitative derived) http://plants.usda.gov/wetinfo.html

Indicator Code	Indicator Status	Comment
OBL	Obligate Wetland	Almost always is a hydrophyte, rarely in uplands
FACW	Facultative Wetland	Usually is a hydrophyte but occasionally found in uplands
FAC	Facultative	Commonly occurs as either a hydrophyte or non-hydrophyte
FACU	Facultative Upland	Occasionally is a hydrophyte but usually occurs in uplands
UPL	Obligate Upland	Rarely is a hydrophyte, almost always in uplands

^{*}Soil pH is determined using a professional soil test. Contact your Clemson University County Extension service for assistance www.clemson.edu/extension/. Click on "local offices".