

# A GUIDE TO Tree Species

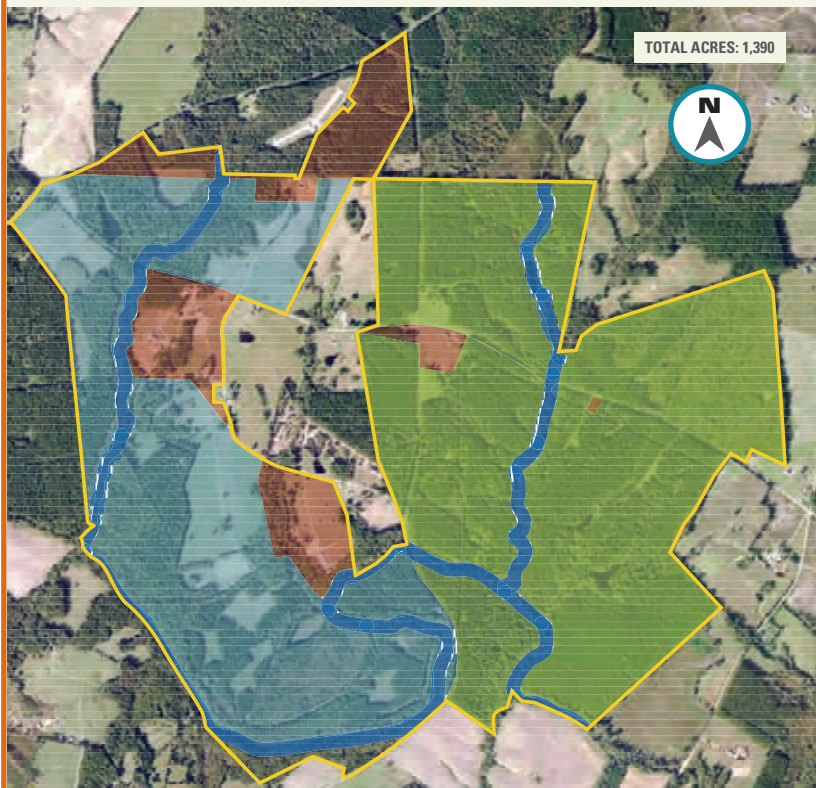


Southern 8ths Farm  
CHESTERFIELD, SOUTH CAROLINA





# Southern 8ths Farm



TOTAL ACRES: 1,390



## **PIEDMONT PRESERVE**

An area set aside for the wonderment, education and the arts for future generations. It includes the equestrian courses and tracks and historic sites.

## **WILDLANDS**

Woodlands and open areas preserved in perpetuity, where Nature is the priority and Man's activity limited. Only accessible on occasional, private tours.

## **WATER COURSE CONSERVATION**

200' buffer around Thompson Creek and Talton and Muddy Branches where no development of any kind will occur.

## **FAMILY HOLDING**

The primary areas that have been developed and where most structures and living areas occur.

# GUIDE BASICS

The purpose of this guide is to provide visitors to Southern 8ths Farm a simple way to identify and appreciate trees on the property. The guide is organized according to leaf shapes which is the most easily recognized characteristic. Shapes are shown in color corresponding tabs on each page. The guide is indexed in the back by leaf shape using local common names. A ruler for measuring smaller parts appears to the right.

We hope you find learning to identify and name the wide variety of trees on the Farm as fascinating as we do!

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## BASIC LEAF SHAPES



Simple, Elliptical,  
Smooth or Almost  
Smooth Margins



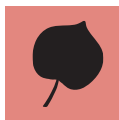
Simple, Pinnately  
Lobed, Oak-like



Simple, Elliptical,  
Toothed Margins



Simple,  
Lance-shaped



Simple,  
Heart-shaped



Compound



Simple, Palmately Lobed,  
Maple-like



Coniferous  
(Cone-bearing)

6"

5"

4"

3"

2"

1"

# BLACK GUM (TUPELO)

*Nyssa sylvatica*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, elliptical to wider towards the tip, occasionally with a few irregular wide teeth. Tip abruptly pointed. 2-4½" long.

## BARK:

Light to dark gray, blocky on older trees resembling alligator hide.

## FLOWERS:

Male and Female flowers on separate trees, greenish-yellow and borne in clusters along stems.

## FRUIT:

A rounded blue-black drupe from ¼-½" long with slightly ribbed seed. Borne in clusters of two to three per stalk.

↑ TO 100'



The name Black Gum comes from the use as a bee gum or hive and as a rabbit gum or trap. Branches typically grow at right angles to trunk. Interlocking grain cannot be split. The wood of the black gum is quite striking with bright sapwood and heartwood that looks like black walnut. On the Farm you'll normally see this on the hillsides near the creeks.



**LEAVES:**

Alternate, simple, elliptical, with finely toothed margins. Often leaves persist as dry curled up remnants on stem into winter. 3-6" long.

**BARK:**

Young stems with smooth bark streaked with cream and dark stripes. Older bark becoming scaly with dark purplish black color.

**FLOWERS:**

White and bell-shaped with 4 shallow lobes hanging in clusters that appear about the same time as the leaves.

**FRUIT:**

A pendulous drupe with four wings and wide at bottom and tapering to the stem.

↑ 50-60'



# COMMON SILVERBELL

*Halesia tetraptera*

DECIDUOUS HARDWOOD



The species name comes from the four (tetra) wings (aptera) of the seed, another species is *H. diptera*, which has two wings. Usually found on moist slopes of the forest. On the Farm it is found down along the floodplains of Thompson Creek.



# FRINGETREE

*Chionanthus virginicus*

DECIDUOUS HARDWOOD



## LEAVES:

Opposite, simple, oval, with smooth margins, to 6" long.

## BARK:

Gray to brown. Smooth when young but developing thin scales with age.

## FLOWERS:

Showy clusters of male and female flowers on separate plants. Four white, linear petals per flower up to 1" long. Sweet smelling.

## FRUIT:

A drupe, bluish black and about 3/4" long.

↑ UP TO 30'



Makes a great ornamental shrub because of showy flowers and bright yellow fall foliage. On the Farm there are a few Fringetree along Thompson Creek between the "Dangerous Bridge" and the rock outcropping.



**LEAVES:**

Alternate, simple, entire margins, widest beyond the middle, 6-12" long.

**BARK:**

Dark brown, smooth except for raised warty areas.

**FLOWERS:**

Dark purple petals in two rows of three with the first or basal row larger.

**FRUIT:**

Green with thin skin, rounded to cylindrical. Sweet edible pulp surrounds dark hard seeds. Ripen late August to early September. Very fast to perish if not eaten quickly.

↑ TO 25'



# PAWPAW

*Asimina triloba*

DECIDUOUS HARDWOOD



An understory tree that grows in colonies or Pawpaw patches. Fruit highly sought after by wildlife and humans that have been fortunate to have tasted them. There is one large grove of Pawpaws on Thompson Creek where the old vernal pool is on the west side of Halfmoon.



# PERSIMMON

*Diospyros virginiana*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, entire margins, elliptical and often with black spots later in growing season. 3–6" long.

## BARK:

Dark gray to black with some white streaks, often in 1" blocks.

## FLOWERS:

Male and female flowers on separate plants. Thick yellow urn-shaped that are in clusters on male plant and solitary on female plant.

## FRUIT:

A thin-skinned, rounded fruit about 1" in diameter that turns orange and softens at maturity when it is sweet and edible. Highly desired by wildlife and humans.

↑ TO 80'



Grows in a wide variety of conditions. A wood that in its hardness is only exceeded by Ironwood and Dogwood. In the past, golf club drivers were made from Persimmon. You'll find Persimmon over the entire property from the flood plains to prairies and within the edges of the hardwood groves. It is usually one of the first trees to grow in a field and the deer love the fruit. The fruit is very astringent - we find that it puckers your kisser up.



**LEAVES:**

Alternate, simple, elliptical with very fine teeth on margins, to 7" long.

**BARK:**

Dark brown with deep furrows tinged with red and broad ridges that interlace.

**FLOWERS:**

White, bell-shaped flowers in one-sided clusters about 6-10" long.

**FRUIT:**

A dry dark gray capsule that often persists into winter on the one-sided cluster.

# SOURWOOD

*Oxydendrum arboreum*

DECIDUOUS HARDWOOD



↑ TO 50'



The leaves taste sour giving the tree its name. Honeybees produce a prized honey from its flowers. The young stems typically grow arrow straight, but the trunks of mature trees are most often twisted and curved exhibiting phototropism or searching for light in this sub-canopy tree.



# AMERICAN BEECH

*Fagus grandifolia*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, elliptical with prominent lateral veins parallel and ending at margin in a tooth. Often retains dry, tan leaves through winter. 2¼-4¾" long.

## BARK:

Light gray, smooth from youth to old age.

## FLOWERS:

March to April male and female separate but on the same tree. Petals lacking.

## FRUIT:

Two triangular nuts enclosed in a spiny bur under 1" long. Edible.

↑ TO 100'



In Washington County of Tennessee there was a Beech carved with "D. BOONE CILLED A BAR ON TREE IN YEAR 1760". The Forest Service estimated the tree was 365 years old when it fell in 1916 and was already 200 when carved by Daniel Boone. You'll usually find these trees mixed in with the other hardwoods and usually on the edge of the flood plains and sides of hills.



**LEAVES:**

Alternate, simple, elliptical having unequal bases and margins with little teeth between bigger teeth. Up to 6" long.

**BARK:**

Light to medium gray with interlacing ridges that are somewhat scaly.

**FLOWERS:**

February to March, before leaves appear, borne in clusters along twigs.

**FRUIT:**

March to April, green and flattened with hairy margins.

# AMERICAN ELM

*Ulmus americana*

DECIDUOUS HARDWOOD



↑ TO OVER 100'



Found on floodplains and drier uplands. In fruit, the sunlight often reflects off the hairy margins of the flattened seeds making them shine. Elms are often planted along city streets because of shady, well-formed crowns and resistance to air pollution. Dutch Elm disease from imported trees threatens the survival of native Elms.



# AMERICAN HOLLY

*Ilex opaca*

EVERGREEN HARDWOOD



## LEAVES:

Alternate, simple, evergreen, broadly elliptical with spine tipped teeth on margins. 2-3" long.

## BARK:

Gray, thin and smooth, often covered with patches of lichens.

## FLOWERS:

White with 4 petals borne in clusters of leaf axils. Male and female flowers on separate plants. Diameter ¼".

## FRUIT:

Red, rounded berries on female trees. ¼- ⅜" diameter.

↑ TO 70'



Also called Christmas Holly because of tradition of gathering branches of green leaves and red fruits for decorations. Birds feed on fruits through the winter. Hollies are abundant on the Farm and can be found around most all areas, except for the planted pine stands.



**LEAVES:**

Alternate, simple, elliptical, margins fine toothed. Up to 4" long.

**BARK:**

Reddish brown. Smooth when young but then breaking into shaggy plates on older trees.

**FLOWERS:**

White with five petals each, borne in fragrant clusters of two to five flowers, before the leaves appear.

**FRUIT:**

Reddish skin, round and about 1" diameter. Edible fruits are juicy and tart.

↑ TO 30'



This thicket forming small tree is found in old fields and fencerows or forest edges. The fruits valuable for wildlife and for making jellies or preserves. Fall foliage can range from bright red to pale yellow.

# AMERICAN PLUM

*Prunus americana*

DECIDUOUS HARDWOOD



# BLACK CHERRY

*Prunus serotina*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, elliptical, with fine-toothed margins. 2-6" long.

## BARK:

Reddish brown with horizontal pores. Smooth when young becoming dark scaly plates when mature.

## FLOWERS:

White with many flowers together forming a small bottlebrush shape 3-6" long. Unpleasant smell indicates pollination by flies.

## FRUITS:

Round and sweet to taste. When ripening progresses from green to red to black.

↑ 80 TO 90'



When the twigs are scratched, an acrid smell is produced. Wilted leaves and twigs are toxic to livestock. A cough syrup is made from the inner bark, and jelly and wine can be made from the fruit. The wood is prized for furniture making.



**LEAVES:**

Alternate, simple, elliptical with finely toothed margins. Base often with shallow heart shaped lobes. 1¼-2" long.

**BARK:**

Ashy gray and smooth except on older trees which become shallowly furrowed with narrow ridges.

**FLOWERS:**

White linear petals, about a dozen in a cluster near the end of twigs and appearing before the leaves. Often sweet smelling.

**FRUITS:**

Like a tiny apple about ⅜" long and reddish purple ripening in June. Sweet and highly prized by most forest creatures.

↑ TO 40'



# DOWNY SERVICEBERRY

*Amelanchier arborea*

DECIDUOUS HARDWOOD



Wonderful as a landscape tree and a native substitute for Bradford Pear. So named because traditionally when blooms appear in Spring, itinerant preachers can once again travel around performing "services" for settlers of the backcountry, and for the young leaves covered with soft, woolly hairs that disappear as the leaf matures.



# NORTHERN WITCH-HAZEL

*Hamamelis virginiana*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, about as wide as long, bases unequal, margins scalloped to coarsely toothed. 2½ -6" long.

## BARK

Light brown, thin, smooth to slightly scaly.

## FLOWERS:

Yellow, linear, twisted petals, four per flower. Appear when leaves begin to drop in fall.

## FRUIT:

Elliptical, woody, about ½" long. In fall after flowering, they ripen and forcibly shoot seeds up to 30' with a loud popping sound.

↑ TO 30'



A liquid or lotion can be made from the stems, which is useful medicinally as an astringent. Witch-hazel is also used by water diviners to find underground water by "water-witching".



**LEAVES:**

Alternate, simple, deciduous, widest above middle and tapering to base, margins wavy or undulate. 1½ -3" long.

**BARK:**

Light brown to gray, smooth and thin. Sometimes becoming bumpy or warty.

**FLOWERS:**

White with 4 petals in clusters around the leaf axils.

**FRUIT:**

Three to five seeds in a shiny red drupe about ¼" diameter, maturing in the fall and often persisting through the winter.

# POSSUM-HAW

*Ilex decidua*

DECIDUOUS HARDWOOD



↑ TO 20'



Found on floodplains and pond borders in the Piedmont and Coastal Plains. A shrub or small tree that is very ornamental in winter because of conspicuous red fruit on otherwise bare branches. Many species of wildlife eat the fruits. This tree can be found near Turtle Pond in the Wildlands section of the farm.



# RIVER BIRCH

*Betula nigra*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, elliptical, primary and secondary teeth (doubly serrate). 1½-3¼" long.

## BARK:

Reddish to gray-brown with thin, pinkish, papery, peeling plates.

## FLOWERS:

Male flowers 1½" drooping catkins producing pollen in February-March. 1/2", erect female flowers are produced same plant, opening early Spring.

## FRUIT:

Upright cone-like clusters about 1½" long.

↑ 60-80'



Often planted as an ornamental because of its unique peeling bark, it occurs in wetlands along stream banks and floodplains. Seeds ripen during flood season and require mud banks for germination, which readily occurs and helps to stabilize the soils. There are several large growth areas along the entire length of Thompson Creek.



**LEAVES:**

Alternate, simple, elliptical with primary and secondary teeth. The upper surface is often rough with small stiff hairs. Less than 2" long.

**BARK:**

Light brown to gray with shallow furrows and small scaly ridges. Twigs often have corky wings giving it the common name.

**FLOWERS:**

Blooms before leaves emerge, growing in clusters hanging down. Each flower has male and female parts.

**FRUIT:**

A winged seed (samara) each about  $\frac{3}{8}$ " long with finely haired margin and a two-clawed tip.

↑ TO 80'



# WINGED ELM

*Ulmus alata*

DECIDUOUS HARDWOOD



This tree can be confused with Sweetgum, which also has winged stems, but the Elm has smaller sized twigs that tend to zigzag between smaller buds. The Winged Elm is abundant on the Farm and is a primary understory tree in the floodplain and along the hills and prairie edges.



# BASSWOOD

*Tilia americana*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, heart-shaped with bases often unequal. Margins toothed. 3-5" long, 2-3" wide.

## BARK:

Dark gray to brown, deeply furrowed with scaly ridges.

## FLOWERS:

Greenish-yellow in a cluster on a slender stalk coming out of the center of a narrow leaf-like bract.

## FRUIT:

A green  $\frac{1}{4}$ " diameter nut on the old flower stalk still attached to bract.

↑ 60-100'



Basswood buds are mucilaginous or okra-like when chewed and flowers sweet when eaten. The wood is often used for duck decoys as it is easily carved. Also called Linden.

**LEAVES:**

Alternate, simple, broadly triangular and coarsely toothed. 2-5" long.

**BARK:**

Gray, smooth on young trees becoming deeply furrowed with prominent ridges on old trunks.

**FLOWERS:**

Male flowers on separate trees from female flowers. Both sexes have pendulous cluster of flowers 2-4" long and lacking petals.

**FRUIT:**

Seeds mature with cottony coating for wind dispersal giving the tree its common name.

# EASTERN COTTONWOOD

*Populus deltoides*

DECIDUOUS HARDWOOD



↑ TO OVER 100'



Fast growing and relatively short lived, up to about 75 years. But a 50-year-old specimen may have a 6' diameter trunk. Wood is soft. In the western states, cottonwoods mark water sources and provide shade in an otherwise treeless plain.



# EASTERN REDBUD

*Cercis canadensis*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, heart-shaped, smooth margins, 3-5" long and wide.

## BARK:

Dark gray to brown becoming slightly scaly when older.

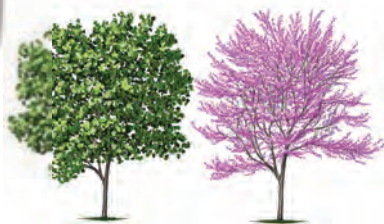
## FLOWERS:

Bright pink in clusters of four to eight. Typical pea shape with five petals, two keeled, two laterals and one standard. Blooms before the leaves appear.

## FRUIT:

A legume 3-4" long, dark brown and often persisting into winter.

↑ TO 40'



An understory tree of the forest, it is planted as an ornamental for size, shade and showy flowers, which are also quite tasty. They are easiest to spot at the Farm in mid March through April when in bloom. Their light pink flowers appear as a pink haze throughout the woodlands – almost a pink mist in many areas. They are a slow grower, with dense wood that make great coasters.

**LEAVES:**

On mature wood, coarsely toothed, alternate, simple, heart-shaped. 1 to 5 lobes on young wood. 4-10" long.

Red Mulberry feels rough or fuzzy, due to short stiff hairs on the top surface. White Mulberry has a dark shiny surface.

**BARK:**

Light gray to reddish-brown. Older trunks moderately furrowed and ridged.

**FLOWERS:**

1/8" long, male and female are separate and can be on the same or different plants. Flowers appear before leaves.

**FRUIT:**

Very dark purple, resembling a blackberry. Red 1 1/4" long. White 3/4" long. Both edible.

↑ TO 60'



# MULBERRY ~ RED OR WHITE

*Morus rubra or alba*

DECIDUOUS HARDWOOD



Latex or milky sap can be seen in cut twigs, fruit and major veins of leaves, distinguishing it from Basswood. Red Mulberry is a native, shade loving tree growing up to 60'. It is known to exist in the Piedmont range. The White is a native of China, brought here to help enhance (unsuccessfully!) the silk industry. It prefers the sun and only reaches about 40'. It has crossed with the Red and now dominates the region. What species are you standing under?



# CHALK MAPLE

*Acer leucoderme*

DECIDUOUS HARDWOOD



## LEAVES:

Opposite, simple, three large lobes and two smaller lobes near base. No small teeth around margin. Bottom side is hairy. 2- 3½" wide and long.

## BARK:

Smooth and light gray to chalky on upper trunk. Often with several trunks.

## FLOWERS:

Both unisexual and bisexual flowers on same tree, appearing in clusters before leaves.

## FRUITS:

Winged seeds in pairs. Bright red when young and fading to yellow as they ripen. Wind dispersed.

↑ TO 40'



Mostly a Piedmont species growing in moist ravines, floodplains and somewhat upslope. Young stems often have persistent dried leaves in winter. Limited range in the lower SE states. The Chalk Maples found on the Farm are almost exclusively along the rocky banks and bluffs of Thompson Creek. It is unusual that they grow in this area and are on the outer edge of the normal growth range.



**LEAVES:**

Opposite, simple, three to five lobes with teeth on the lobes. Autumn colors of red, orange or yellow. 2-6" long.

**BARK:**

Light gray, smooth and thin on younger wood. With age the bark develops long scaly plates with a dark gray, resembling Shagbark Hickory.

**FLOWERS:**

Red, small and showy before the leaves. Usually male flowers on one tree and female flowers on another, but all combinations are possible.

**FRUIT:**

Winged seeds in pairs with the winged end slightly curved and widening towards the tip.

↑ TO 90'



# RED MAPLE

*Acer rubrum*

DECIDUOUS HARDWOOD



A fast growing tree attractive as a lawn shade tree. Grows in many habitats and is tolerant of a wide range of conditions. Red is always present somewhere on the tree whether it be in the flowers, fruit, twigs, buds, leaves or leaf stalks. But all the above can be also green at some time.



# SWEETGUM

*Liquidambar styraciflua*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, five-lobed and often star shaped. The margins have fine teeth. 4-7½" long.

## BARK:

Gray with shallow furrows and flat, wide and somewhat scaly ridges.

## FLOWERS:

Petals absent with male and female flowers separate but on same tree. Male flowers greenish yellow in clusters on the twig ends. Female flowers green in rounded clusters in the leaf axils.

## FRUIT:

A spiny, woody ball about 1" in diameter containing many capsules.

↑ 80-100'



The tree is often tall and straight with few lower limbs. Twigs often have corky wings but are more robust than Winged Elm twigs. Terminal buds are large and appear to have a varnished shine to them. The interlocking grain of the wood makes it impossible to split but has a beautiful multi-color grain that is in several of the Farm's rooms. The rosin has many uses including chewing gum.

**LEAVES:**

Alternate, simple, three to five coarsely toothed lobes. The leaf stem base is hollow. 4-7" long.

**BARK:**

Widely variable with age. Younger bark is camouflage appearing with green, brown and white patches. Bark cracks and peels off as the trunk grows. Older trunks are dark gray with scaly ridges.

**FLOWERS:**

Male and female flowers on same tree are in round drooping heads. The females are dark rusty-red and the males are yellowish-green.

**FRUIT:**

Compact round balls on long stems dangling from twigs.

↑ TO 100'



# SYCAMORE

*Platanus occidentalis*

DECIDUOUS HARDWOOD



A hardwood tree that is often found stream side or near to water. It is very recognizable by its mottled bark and dangling fruits. Sections of the trunk were often used as butcher blocks since no amount of chopping could split this wood. There are several pieces of Sycamore throughout the Farm buildings.



# TULIP-TREE

*Liriodendron tulipifera*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple with four to six lobes, entire margins. About as broad as long – 6".

## BARK:

Light gray and smooth on young wood becoming deeply furrowed and ridged on older wood.

## FLOWERS:

Greenish yellow petals form a cup with orange patches on the inner surface and many vertical pollen stalks surrounding the central female part.

## FRUIT:

A cylindrical light gray structure opening into a tall cup as the winged seeds begin to separate and disperse in the wind.

↑ TO OVER 100'



A softer hardwood that typically grows straight as a telephone pole. It is fast growing and gives good shade, but is always dropping bud scales, flowers, seeds, leaves or stems through the year. Also called Tulip Poplar and Yellow Poplar but is a member of the magnolia family. Its wood can have a wide variety of color ranging from green to red to black. This staining is caused from the absorbed minerals and is highly prized by woodworkers.

**LEAVES:**

Alternate, simple, typically five-lobed with the middle and terminal lobes larger than basal lobes. No bristle tipped lobes but rather smooth margins. Bottom of leaves a downy type of hairs. 4-6" long.

**BARK:**

Gray-brown with deep furrows and irregular thin ridges.

**FLOWERS:**

Similar to all oaks with clusters of male catkins separate from clusters of female flowers, but on same tree.

**FRUITS:**

An acorn from ½-1" long with cup enclosing one-third of the nut and matures in one season.

↑ TO 80'



# POST OAK

*Quercus stellata*

DECIDUOUS HARDWOOD



Found in dry woodlands often with sandy or rocky soils. Dry, brown leaves often persist through winter. Pioneers used it for fence posts giving us its common name. Post Oaks are usually found on the higher ground away from the low plains at the Farm.



# RED OAK

*Quercus rubra*

DECIDUOUS HARDWOOD

## LEAVES:

Alternate, simple, widest above the middle and with five to seven bristle tipped lobes. 5-9" long.

## BARK:

Dark gray with shallow furrow and whitish ridges giving the trunks silver streaked look.

## FLOWERS:

Like most oaks with cluster of male flowers in catkins and cluster of separate female flowers on same tree.

## FRUIT:

Acorn often over 1" long and parallel, streaked sides abruptly tapering to a sharp tip. The cap very shallow covering about one-quarter of the nut and matures in two seasons.

↑ TO 100'



Often called Northern Red Oak or Red Oak. The bark is often confused with Scarlet Oak, but does not have the blackened base that Scarlet Oak has. The wood is reddish and the twigs usually have a star-shaped pith. It is abundant on the Farm, although we are on the very edge of its normal range. It was planted as a timber source on the higher areas of Half Moon in the hardwood grove. It is frequently used for flooring and durable furniture.

**LEAVES:**

Alternate, simple, three to five lobes each with a bristle tip. Base of leaf is bell shaped. 5-9" long.

**BARK:**

Dark brown to black, deeply furrowed, thick and rough.

**FLOWERS:**

Male catkins hanging in cluster near base of current growth. Female flowers on same tree but solitary or few-flowered spikes.

**FRUIT:**

Acorn matures in two seasons and become about 1" long. The cap encloses about a third of the nut.

# SOUTHERN RED OAK

*Quercus falcata*

DECIDUOUS HARDWOOD



↑ TO 100'



It is often found in drier, upland sites. The bell shaped base of the leaf brings to mind "Southern Bell" which is good way to remember the name, Southern Red Oak. The wood is reddish and is used for furniture and flooring.



# WATER OAK

*Quercus nigra*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, narrowly elliptical to linear, wider at tip, slightly lobed. Lobes will have a bristle tip when young, but they often fall off of the older leaves. Up to 5" long.

## BARK:

Gray and smooth on young wood but becoming rough with shallow furrows on older wood.

## FLOWERS:

Pollen bearing catkins dangling in clusters. Female flowers on the same tree with three-forked stigmas and lower scales that become the acorn cap in fruit.

## FRUIT:

The acorn is only about ½" long with a shallow cap.

↑ TO 100'



This tree, in the red oak group, occupies a wide range of habitats and is fast growing. The leaves are tardily deciduous. The normally heavy acorn crop makes it an important food source for wildlife. It is one of the larger trees on the Farm, usually found along old fence or hedgerows. Its wood has a bold grain pattern with light and dark and frequent branch swirls. It has been said that the leaves appear to look like drops of water.

**LEAVES:**

Alternate, simple, seven to ten rounded lobes, widest above middle. 4-6" long.

**BARK:**

Light ashy gray with large, scaly plates loose one side.

**FLOWERS:**

The male flowers are pollen-bearing catkins that dangle in clusters at the base of the current year's growth.

The female flowers have a three-lobed stigma at the tip and the base has numerous scales that later form the cap of the nut. Clustered in one to three flowers.

**FRUIT:**

Acorns are cylindrical, about  $\frac{3}{4}$ " long with the cap covering less than half the nut.

↑ 80-100'



# WHITE OAK

*Quercus alba*

DECIDUOUS HARDWOOD



This tree, in the white oak group, grows to a large size on deep fertile soils. A species-specific virus often causes trunk swellings. Wood is resistant to rot and decay. It is used for caning of seat bottoms, shakes for roofing and in high demand for wine barrel staves. But you'll have to get it away from the locals who prize it for replacing trailer beds. It is abundant on the Farm and grows throughout the hardwood areas.



# BLACK WILLOW,

*Salix nigra*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, simple, narrowly lance-shaped with fine-toothed margins. 2-6" long.

## BARK:

Dark gray to almost black with shallow furrows and scaly ridges.

## FLOWERS:

Male and female on separate plants. Both are bottlebrush shaped with many flowers. Male catkins erect and female catkins drooping. Both lack petals.

## FRUIT:

A two-valved capsule less than 1/4" long.

↑ 80-100'



A tree of the floodplain and margins of water where roots stabilize the soil. A soft wood that is used for baskets and wicker furniture. A cut stem stuck into the mud easily roots and grows. Boiling the inner bark produces a pain reliever containing salicin, which is also anti-inflammatory like aspirin.



**LEAVES:**

Alternate, simple, narrow, margins entire without lobes. Similar to those of the Willow except for the veins extending beyond the margins as fine bristles. 2-8" long.

**BARK:**

Grayish-brown and smooth when young, becoming darker and shallowly furrowed when older.

**FLOWERS:**

Male flowers in clusters of catkins and female flowers on the same tree, in clusters of one to three with three-lobed tips and the base with numerous scales.

**FRUIT:**

Rounded acorn about 1/4-1/2" long.

↑ TO 100'



# WILLOW OAK

*Quercus phellos*

DECIDUOUS HARDWOOD



This tree grows in the Piedmont and Coastal Plains and is very abundant on the Farm. It is fast growing and long-lived, becoming a beautiful stately tree with abundant acorns valuable to wildlife. It can cross with Water, Laurel and Diamond Leaf oaks. When you find a very large tree – one that two people can't put their arms around, it is either a Willow Oak or the Water Oak.



# BLACK WALNUT

*Juglans nigra*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, pinnately compound with nine to twenty-one leaflets that have finely toothed margins. Compound 10" to 20" long.

## BARK:

Dark gray to black with deep furrows and interlocking ridges.

## FLOWERS:

Male and female separate but on same tree. Wind pollinated.

## FRUIT:

Husk about 2½" diameter and green when fresh, becoming black with age. Seed oily and delicious to eat.

↑ TO 100'



Often planted at old home sites where it was used for food and dye. It releases a chemical in the ground that prohibits many other plants from growing. Finest wood of all for cabinet making and for gunstocks. Most all of the Black Walnuts on the Farm are in the floodplains where the ground is moist most of the year.



**LEAVES:**

Alternate, pinnately compound with nine to seventeen leaflets, 4-8" long having finely toothed margins. Compound to 20" long.

**BARK:**

Light brown to gray with narrow, scaly ridges and shallow furrows.

**FLOWERS:**

Wind pollinated with male catkins pendulous, cylindrical and small female flowers.

**FRUIT:**

An elliptical nut having a thin husk and 1½-2" long with sweet edible seeds.

↑ TO 140'



# PECAN

*Carya illinoensis*

DECIDUOUS HARDWOOD



Although native to Mississippi River valley and westward, it is widely cultivated. Wood is great for smoking meat as well as for furniture. Most of the Farm's Pecan trees are in or along hedgerows of old agricultural fields and have been planted by prior owners. They only produce nuts at 6-10 years old and usually produce the most nuts every other year.



# BITTERNUT HICKORY

*Carya cordiformis*

DECIDUOUS HARDWOOD



## LEAVES:

Alternate, pinnately compound with seven to eleven leaflets, margins toothed. Compound 8-14" long.

## BARK:

Gray to brown with tight, diamond shaped pattern to ridges.

## FLOWERS:

Male and female flowers separate but on same plant. Wind pollinated.

## FRUIT:

Nut is round but slightly flattened and 1-1¼" long with a bitterness that makes it unpalatable by humans, but still eaten by rodents.

↑ 50-80'



The bright yellow buds distinguish this from other hickories. The fastest growing of hickories and being long-lived makes it a great shade tree. Bitternut oil can be used for culinary purposes. A five gallon bucket of nuts produces about 3/4 gallons of oil. The nuts are acceptable to harvest since most wildlife avoid bitternut.

**LEAVES:**

Alternate, pinnately compound with usually five to seven leaflets. Compound 8-12" long.

**BARK:**

Light gray on young stems, becoming darker and diamond fissured on older trunks.

**FLOWERS:**

Longer male catkins in clusters and shorter female flowers.

**FRUIT:**

A fig-shaped, thin husk surrounding a shell with sweet edible seed inside.

# PIGNUT HICKORY

*Carya glabra*

DECIDUOUS HARDWOOD



↑ TO 80'



Grows in moist to dry upland sites along with Mockernut Hickory and Oaks and is very common in Piedmont and the lower mountains. It has excellent yellow fall foliage and is a good hard wood. There are four Hickories found on the Farm; Pignut, Bitternut, Common Shagbark and Pecan. All of the wood looks very similar with a very distinct light and dark grain pattern.



# COMMON SHAGBARK HICKORY

*Carya ovata*

DECIDUOUS HARDWOOD

## LEAVES:

Alternate, pinnately compound with usually five leaflets with toothed margins. Compound 12-24" long.

## BARK:

Dark gray with plates 2-3' long and peeling outwards at top and bottom.

## FLOWERS:

Male catkins and female flowers separate but on same tree. Wind pollinated.

## FRUIT:

Thick husk to  $\frac{3}{8}$ " thick. Seeds one of the sweetest of the hickories.



↑ 70-90'



Thick twigs, large nuts and shaggy bark make this tree distinctive. It prefers moist alluvial soils along streams and is found ascending the slopes as well. Boiling the bark and adding lots of sugar makes very tasty, brown syrup.

**LEAVES:**

Evergreen, aromatic, scale-like on mature stems, awl-like on young stems.

**BARK:**

Reddish-brown, thin, stringy with often-fluted trunks.

**CONES:**

Male cones and female cones on separate trees. Male cones from  $\frac{1}{8}$ - $\frac{1}{4}$ " long.

**FRUIT:**

Female cones about  $\frac{1}{4}$ " diameter when ripe, bluish and with a white waxy coating. The female cones are frequently confused as berries although a closer look shows their cone structure.

↑ 40-60'



# EASTERN RED CEDAR

*Juniperus virginiana*

CONIFEROUS SOFTWOOD



While called a "Cedar" it is not a cedar but a Juniper. It is one of the first trees to repopulate an old farm field and is abundant on the Farm. The wood is highly rot resistant so is valued for fence posts. For centuries it has been used for clothing chests and closet linings as its wood contains an oil that gives off an aroma that repels moths. Juniper fruits are used to flavor gin.



# LOBLOLLY PINE

*Pinus taeda*

CONIFEROUS SOFTWOOD

## LEAVES:

Evergreen needles in bundles of three, 6-9" long.

## BARK:

Older trunks reddish brown in large, rectangular plates.

## YOUNG CONES:

Pollen cones greenish-yellow, about ½" long. Female cones 1-1½" long and green tinged with pink.

## MATURE CONES:

Mature cones egg shaped and 4-6" long with thin, sharp prickles.



↑ TO 100'



The most widely planted commercial tree, used for dimensional lumber, pulp and plywood. It is fast growing, but susceptible to diseases. The Farm has over 700 acres planted in Loblolly. Most of the Farm pines were planted between 1998 and 2007 and would normally have a 30-year life cycle. Here, we moved that back to 50 years to enhance the diversity and wildlife potential.



**LEAVES:**

Evergreen, two needles per bundle, 2½-5" long.

**BARK:**

Reddish-brown breaking into irregular, rectangular plates with small resin pockets.

**YOUNG CONES:**

Male and female cones on same plant. Male cones greenish-yellow and female cones pinkish.

**MATURE CONES:**

Rounded and wider at bottom, about 1½-2½" long and stalk-less with short prickles curving towards base.

# SHORTLEAF PINE

*Pinus echinate*

CONIFEROUS SOFTWOOD



↑ TO 100'



Found in most of South Carolina, except sandy areas of the low country, it grows best in the loamy soil of the Piedmont. It was the primary construction pine for centuries, but it is a much slower growing tree than Loblolly. It has a very hard, durable, tight grained wood that is valued for finished woodworking. It was also a primary source of pitch used to produce turpentine. There are several natural stands on the Farm.



# VIRGINIA PINE

*Pinus virginiana*

CONIFEROUS SOFTWOOD



## LEAVES:

Two evergreen needles per bundle, twisted and flexible, 1½-3" long.

## BARK:

Orange-brown, thin and scaly, which resembles dark potato chips.

## YOUNG CONES:

Pollen cones are yellow-green and ¼-½" long and in clusters. Female cones in clusters of two to eight.

## MATURE CONES:

Egg-shaped to conical and 1½-2½" long. Scales are armed with a thin, sharp prickle.

↑ 40-70'



This pine is often found in poor clay soils. The dead branches are not self-pruning and persist on the trunk giving it a scrubby look. It is sometimes called the Scrub Pine. That and the peeling, potato-chip bark and short needles are good diagnostic features. There is a fair number of them on "Sweets Bluff" on the ridge above Thompson Creek.

# SPECIES INDEX

BY COMMON NAME

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## Southern 8ths Farm

If you walk under a canopy of trees and appreciate the shade or sounds of rustling wind and chirping birds, do you wonder about the trees? What are their names? What do their leaves look like? What makes them unique and important to the forest and to us?

This book is our gift to you. It will introduce you to the trees at Southern 8ths Farm. We hope you will question the roles they play, from the seed that might start it all, to the blow-down that becomes home to thousands of species or is reclaimed as the family heirloom table.

We think trees are a lot like people ... once you are introduced and know their names, it's a lot easier to become friends and have a lasting relationship.

*Pati & Brad*

Jackson Road West, Chesterfield, South Carolina

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