

INFORMATION ABOUT SOME COMMON TENNESSEE TREES
Tennessee Division of Forestry

Tennessee and neighboring areas in Kentucky, Virginia, North Carolina, and Georgia have the most diverse forests in the temperate zones. Only the tropical rain forests have more species of trees! 178 tree species are native to Tennessee, and several other species have "gone wild" after being introduced here. Trees from China and Japan are especially common, because the climate here is very similar to the central regions of those countries. Some examples are mimosa, ailanthus, and paulownia. This paper talks only about the most common native Tennessee trees.

Oaks

Most common and important trees of eastern forests.
20 species are native to Tennessee.

Identifier: Only oaks have buds clustered at ends of twigs.

Two families of oaks: Red and White.

White oaks include "the" white oak (*Quercus alba*), swamp white oak, bur oak, chestnut oak, swamp chestnut oak, chinquapin oak, post oak, and overcup oak.

White oaks have...

..."soft", flaky, light-gray bark (exception: chestnut oak)

...rounded lobes on leaves (not obvious on chestnut, swamp chestnut, and chinquapin oaks)

...tiny plugs in the heartwood pores. These partitions make "the" white oak (*Quercus alba*) waterproof.

...acorns that mature in one year, are sweet, and are smooth on the inside of the shell.

White oaks tend to grow slowly. Specialty uses include whiskey barrels and woven baskets.

Red Oaks include: northern red oak, southern red oak, scarlet oak, shumard oak, pin oak, black oak, blackjack oak, nuttall oak, water oak, willow oak, and shingle oak.

Red oaks have...

...hard, furrowed, dark gray-brown bark.

...soft bristles on the tips of the leaf lobes.

...heartwood with open pores that let water thru and cause the wood to decay faster than white oak. You can actually see through these little tubes in a thin crossgrain slice of oak. Red oak wood also smells bad.

...bitter acorns that mature in two seasons and are hairy on the inside of the shell.

Red oaks generally grow faster than white oaks...about twice as fast on better sites.

Northern red oak and southern red oak: very valuable timber trees. Southern red oak is known as "turkey foot oak" because some leaves at the end of branches look like three-pronged turkey feet; undersides of leaves are gold.

Cherrybark oak: fast-growing bottomland variety of southern red oak, highly valued for lumber and veneer. Younger bark is smooth and flaky or peely-looking, resembling cherry bark. Older bark is rough and dark.

Scarlet oak: upland tree; retains its dead limbs, so it produces lumber full of loose knots.

Black oak can be identified by its orange inner bark.

Blackjack oak, with its blackjack-shaped leaf, grows on very poor, droughty sites and doesn't get very large.

Post oak is very common on poorer sites. Distinctive cross-shaped leaves. Used for posts and firewood.

Leaves of chestnut oak and chinquapin oak look similar, but their barks are very different: chinquapin oak has typical white oak bark; chestnut oak has hard, deeply furrowed bark with orangish coloration between the ridges, much like the bark of chestnut or sourwood.

Pin oak, a "cousin" of scarlet oak, grows on deep rich bottomland soils. It is a beautiful landscaping tree with limbs that spread straight out perpendicular to the trunk.

Oaks are very valuable for both wildlife food and for wood products. Acorns are eaten by deer, squirrels, turkey, quail, grouse, wood ducks, and some song birds. The strong, hard, beautiful wood is highly valued for veneer, furniture, flooring, lumber, casks, railroad ties, and a host of other products.

Oaks are tolerant when young, and can survive for up to 10 years in the understory without harm. After 10 years they start losing vigor, become stunted, and eventually die. But since there is a good acorn crop every few years, there are always young, healthy oak seedlings in an oak forest. For that reason oak forests tend to remain oak forests: when the old trees die, root sprouts and seedlings are already waiting to take their place. Oaks grow back mainly from root sprouts.

Acorns are spread by gravity, squirrels and other animals, but mostly by bluejays, which fly off with two acorns, one of which they almost always drop.

Common ailments of oak:

Oak wilt: sudden wilting and death of all leaves on a branch or an entire tree; leaves fall half green; caused by a fungus and quickly kills the tree.

Oak decline: dieback of leaves on ends of branches, and clumps of leaves clustered around the bases of branches and bole of the tree; results from a complex interaction of factors (drought, poor soil, competition, insects and disease) that weakens and kills the tree over several years.

In the northeastern U.S. oak is a preferred food of the ravenous gypsy moth, imported from Europe in the early 1900's, which defoliates huge acreages each year in the

northeast. The moth has not yet reached Tennessee, due to a trapping and spraying program.

The ancients worshipped oaks because they were huge and long-lived. In the old day oaks were always in demand for ship-building. Oak "knees" of just the right shape were highly prized for ship keels. The Indians made flour and bread from white oak acorns, and in early America acorns (and chestnuts) provided prime hog fodder.

Hickories

The eight species of hickory native to Tennessee make up the second most common group of trees in our forests.

Hickories and pecan are members of the walnut family.

Identifiers:

- compound leaves arranged alternately on stem.
- tip leaflets are bigger than base leaflets.
- only 5 to 7 leaflets per leaf.
- hickory nuts, which have hulls that split apart into sections.
- in winter the twigs have large, triangular or horseshoe-shaped leaf scars containing prominent dots where the vascular bundles entered the leaf stem (walnut also has this feature)

Note: there are two very different barks on hickories: the distinctive loose, shaggy strips of bark on the shagbark and shellbark, and the tight bark of the other species.

Distinguish from:

ash and box-elder (have opposite branching and winged fruit, and lack the large dotted leaf scars)

walnut (walnut has many leaflets, its nut husk is solid, and the nut shell is corrugated; pith in the walnut twig is chambered)

Hickory is fairly tolerant of shade and competition, so it is common in the forest understory and perpetuates itself in the forest. Does not withstand drought very well on drier sites. Very slow growing (about half as fast as white oak), so is not highly desirable as a timber tree, even though the wood is valuable.

Hickory is the toughest American wood; some woods are a little harder, some are a little stronger, but when all properties are considered together, nothing beats hickory. For this reason hickory is the top choice for tool handles; four out of five hickory logs is used for tool handles. Along with black locust, it is the best firewood, and it imparts a good flavor to grilled meat. Nuts are excellent wildlife food.

Pioneers used "hicry" for tools, ramrods, and the infamous hickory switch. They also made pies from the nuts, despite the hard work it took to extract the tiny meats from the exceedingly hard, thick shell.

Hickory leaves turn a clear, bright yellow in fall.

Yellow poplar

Identifiers:

- unique "tulip-shaped" leaf.
- showy green & orange tulip-like flower in May.
- straight form and bullet-shaped crown.
- cone-like fruit, and its bracts, which stay on the tree thru the winter, like wooden flowers.
- flat green "duck-bill" bud.

Also know as tulip poplar, tulip tree, and popple. Tennessee's state tree. One of the most ancient broadleaf trees. Member of the magnolia family. Third most common type of tree in Tennessee, after oaks and hickories.

Very intolerant. Grows very fast, straight and tall on better sites. Tallest tree in the eastern US. "Self-prunes" lower branches (shaded branches die and fall off.) Prefers deep, well-watered mountain soils, but will grow on all but very dry sites. Often forms solid stands in rich mountain coves and on northeast slopes, where its bright yellow star-like leaves make it stand out in the fall. Wind-blown seeds grow profusely on abandoned farms: 10,000 to 20,000 seedlings per acre are common.

Yellow-poplar's fairly soft, easily worked wood has many good qualities and is used for cabinets, house framing, and many other uses. Its tall, straight, limbless trunks and fast growth make it an ideal timber tree. Deer browse its young leaves, but otherwise yellow-poplar provides no notable benefits to wildlife. Much of Tennessee's honey comes from yellow poplar.

Yellow-poplar was common in Tennessee's virgin forest, and grew to great size: over 200 feet tall and several feet thick, with the first branches over 100 feet above the ground. Indians and pioneers hollowed out logs and used them as huge canoes (hence the name "canoe wood"). Poplar was often used to make log cabins because it was large, straight, easy to work, and the heartwood repelled termites.

Ash

Member of the olive family. Four species native to TN: white, green, blue, pumpkin.

Identifiers:

- compound leaf with 5 to 9 equal sized leaflets.
- opposite branching.
- tight diamond pattern in bark.

Distinguish from:

hickory (opposite branching, uniform-sized leaflets, winged fruit, diamond bark on ash);

sumac (branching, leaflet numbers, fruit, bark);

boxelder (toothed margins on boxelder leaflets, paired seeds on boxelder vs single on ash.)

(Note: to the novice, leaflets high up in tall trees may bear superficial resemblance to black cherry. Look for compound leaves and diamond bark.)

Intolerant; small windborne winged seeds make it a good pioneer species, like yellow-poplar.

Ash wood is similar to hickory: very strong and flexible, and easy to bend. Ash is used for tool handles, sports equipment (especially baseball bats), furniture and flooring.

Because of its fast growth, straight, self-pruning bole, and excellent wood, ash is a highly desirable timber tree.

Maples

Seven species of maple and the closely-related boxelder are native to Tennessee: red, silver, sugar, black, striped, mountain, and chalk maples.

Identifiers:

- opposite branching
- pairs of winged "helicopter" seeds
- simple (not compound) leaves on long stems, similar to sycamore, except that sycamore has fuzz along the veins on the back of the leaf, and maple doesn't.

Maples are tolerant (red and silver less so), and grow well in shade or sun. Leaves are very efficient at using sunlight, so lower branch don't die, giving the tree a deep, shady crown and limby trunk.

Seeds and buds are a prime squirrel food in late winter and early spring, and leaves are browsed by deer.

Sugar, black, and striped maples are "hard maples" Their tough, springy, abrasion-resistant wood is used in furniture, flooring, bowling pins and lanes, gun stocks (Kentucky longrifles usually had maple stocks), and charcoal. Sugar maple sap is collected and boiled down into maple syrup (40 gallons of sap yield a gallon of syrup). Hard maples turn brilliant yellow, orange and red in fall; seeds ripen in fall.

Soft maples grow faster than hard maples, but have weaker wood. Soft maple leaves don't turn bright colors in fall. Soft maple seeds ripen in the spring. Silver maple is one of the most popular shade trees, but it has problems: its weak limbs break, twigs die and fall off, and shallow roots protrude from lawns.

Soft maple is not desirable for lumber. Even hard maples are not considered the best choice for timber trees in Tennessee because they are limby and slow-growing.

Boxelder grows on creekside areas that sometimes flood. Its compound leaves look like poison ivy. Differences: most boxelder leaves have more than 3 leaflets; poison ivy usually has a thumblike lobe on the outside of the outside leaflets and 2 such lobes on the center leaflet; boxelder has opposite branching; poison ivy has berries, not winged seeds.

Sweetgum

Identifiers:

- star-shaped leaf.
- prickly "beaked" round woody fruit that stays on tree all winter.
- corky ridges or wings along twigs (winged elm and winged sumac also have this feature).

Very intolerant. Grows tall and straight. Prefers moist sites, but is found on hillsides too. Most common in west Tennessee.

Reddish heartwood of large trees, call "red gum" is highly prized for veneer. Sweetgum is commonly used for interior parts of furniture.

The tree gets its common and scientific name (*Liquidambar styraciflua*) from the sweet fluid it exudes. Sweetgum leaves show a mix of bright colors in the fall: purple, red, orange, yellow.

Black Gum or Tupelo

Identifiers:

One of the hardest trees to learn to identify.

Generic-looking oblong leaves that look like sourwood leaves. (Sourwood leaves have toothed edges).

Blueish berries in small clusters on stalks.

Older bark often hard, black, and "knobby" similar to persimmon and old cherry.

Bright scarlet leaves late in summer, like sourwood.

Branches spread straight out from trunk.

Pith in twigs is segmented (but not chambered like walnut).

Upland tree. Not very large. Tends to have flattened top without a distinct terminal (top) shoot, or "leader". Fairly tolerant. Very common throughout Tennessee.

Wildlife love the fruits. Blackgum makes a very poor timber tree: its wood is not strong and warps badly, and logs are small and of poor quality.

The wood of blackgum is very tough and almost impossible to split due to its interlocking grain. It is used for butcher blocks, and in the old days was used for bumpers on docks, barges, and river boats. Oldtimers used blackgum twigs with frayed ends as toothbrushes.

Swamp tupelo

Larger, riverbottom relative of blackgum.

Sycamore

Identifiers:

- bright white smooth bark on limbs, peeling a to patchy multi-color pattern, while old bark on trunk looks like typical brown tree bark.
- fruits the size and shape of golfballs, hanging on "strings" 2 to 3 inches long. Fruits disintegrate in the spring, releasing windblown seeds.

Usually found around water. Intolerant of shade and competition. Biggest U.S. hardwood when height, girth, and crownsread are all considered. Grows very fast on rich riverbottom sites: planted improved strains of sycamore grow to 100 feet tall in 10 years on Mississippi River islands.

The wood has interlocking grain; used for butcher blocks, interior parts of furniture, food containers (because it has no taste), and paper.

Eastern Cottonwood

Identifiers:

- spade-shaped leaf on long flattened stem that flutters in the wind.

Very intolerant, water-loving tree found on the shores of lakes and rivers and in wet bottomlands.

Cottony seeds blow in the air and float on water. Many people are allergic to cottonwood fluff and pollen.

The fastest-growing hardwood tree in America. Like sycamore, cottonwood can reach 100 feet in 10 years on river island plantations, and can reach heights of over 200 feet.

The soft, light wood is used for boxes and furniture interior parts, and for paper. Cottonwood plywood is often overlaid with more expensive veneers.

Elms

Identifiers:

- spreading "vase" shape.
- pointed leaf with rough surface, lopsided at the base.
- light seed with circular wing around it.

Distinguish from:

- Hackberry, which has a narrower, more pointed leaf with single (not double) teeth on the edge, a smooth leaf surface, a berry, and smooth bark with warts.
- Hophornbeam, which has a distinctive hop-like fruit.

Elms are pioneer species, and are moderately tolerant.

American elm: beautiful shade tree. Many have died from imported Dutch Elm Disease, a fungus spread by a beetle. Wood is very easy to bend, used for barrels, crates, baskets.

Slippery elm: Fragrant, slick inner bark was chewed in the past, and is the key ingredient of the famous "spitball". Has the best wood of all the elms.

Rock elm: Narrow, round-topped tree. Smaller leaves than other elms. Wood is very hard and heavy, and has the highest shock resistance of any American wood except dogwood.

Winged elm: Has corky ridges on twigs, slender leaves.

Beech

Identifiers:

- smooth, gray "elephant skin" bark.
- shiny leaf has veins that go straight out to the edge.
- triangular beechnuts in prickly four-part husks.

Very tolerant. Very slow growing and long-lived; 2-3 foot diameter trees can easily be 300 years old. Thin bark is easily killed by fire, letting in decay; beeches are often hollow.

Nuts are excellent wildlife food. Wood is hard and smooth, very useful for broom handles, furniture, and flooring. Limby, hollow trunks and slow growth make it undesirable as a timber tree, however. Foresters usually recommend that big spreading beeches be cut down to allow commercially valuable trees to grow in their place, except where they are needed for wildlife. Beech is actually becoming more common in Tennessee due to the widespread practice of "highgrade" logging that takes out only the best trees. This practice leaves the hollow, limby beeches, and it produces a shady forest which favors regeneration of beech.

Smooth beech bark is a tempting place to carve graffiti. Because beech grows so slowly, carvings remain legible for long periods. Daniel Boone's carving is still legible on a beech in east Tennessee, and on a beech tree trunk preserved in a Louisville museum. The word for "beech" in German is "Buche", similar to "Buch", or book. The tree probably got its name from its good writing surface, before paper was known.

Hackberry

Identifiers:

- smooth gray bark often covered with "warts".
- narrow, toothed, light green translucent leaves slightly lopsided at base.
- single small dark blue "berries" scattered all through edge of tree crown.

Distinguish from: black cherry, elm

Very common in middle Tennessee, especially along old fencerows. Birds spread its seeds. Adapts to a wide range of conditions, and can tolerate dry rocky sites. Often has holes where branches have rotted off, and serves as a "wildlife hotel."

Persimmon

Identifiers:

- distinctive orange fruit and flat seeds (on *female* trees only)
- thick, square-patterned blocky black bark that can resemble black gum.

Distinguish from: black gum by fruit and branching pattern, and blocky pattern in bark, which is more square in persimmon.

Intolerant. Usually occurs as scattered individuals or in small groups. Animals love the fruit, which is very tasty when ripe but extremely bitter if unripe. The wood is very heavy, hard, and shock resistant; made into golf club heads. That use makes large persimmon trees quite valuable. Persimmon is the only North American member of the ebony family; it has black heartwood.

Sassafras

Identifiers:

- three shapes of leaves...oblong, two-lobed ("catchers mitt"), and three-lobed.
- smooth green twigs; fragrant, especially when dead.

Distinguish from: mulberry, which has the same leaf shapes but has rough surface; mulberry does not have green twigs.

Small to medium-sized tree which commonly pioneers in abandoned fields and along fencerows. Dark blue berry is spread by birds. Deer and other animals also eat the fruit. Sprouts vigorously and makes a good comeback after fire. Leaves turn bright yellow and orange in the fall. Distinctive horizontal branching makes it easy to spot in winter

Best known for its aromatic roots, from which sassafras tea, sasparilla, and rootbeer flavor are (or were) made. The bark of smaller roots makes the best tea. In the past, distillation of sassafras oil was a sizable local industry.

The wood is soft, weak, and brittle, but very attractive. Large trees bring high prices for use as veneer.

Old-timers used sassafras for oxen yokes because it was light, and for wagon and truck beds because it was rot-resistant.

Flowering Dogwood

Identifiers:

- showy white four-bracted flowers.
- leaf veins curve around the leaf.
- opposite branching.
- fine blocky texture to bark.

Small, spreading, tolerant tree common in forest understories throughout TN. The showy white "flower" is actually a cluster of small flowers surrounded by four big "petals", which are not really petals, but bracts. There is also a rough dogwood without showy flowers, and an alternate leaf dogwood.

The wood of dogwood was once used for loom shuttles because it is the hardest American wood. Dogwood was used to smelt iron because it burns hot and fast.

The red berries are a favorite of birds and animals.

Legend says that the dogwood used to be a tall tree. But because the cross of Christ was made of dogwood, God made the tree grow low, and gave it flowers that told of the crucifixion: the "petals" show the four points of the cross, the ends of which are red with blood; the small flowers in the center represent the crown of thorns.

Redbud

Identifiers:

- heart-shaped leaves.
- purple pea-like flowers along branches in March
- clusters of flat pea-like pods along branches

(*Catalpa* also has heart-shaped leaves and bean-like fruits, but catalpa leaves are longer, its fruit is round in cross section and looks like a long green bean, and its flowers are white, borne in clusters.

Small, tolerant understory tree that grows everywhere in the state. Member of the pea (legume) family. The flowers are edible, and taste like fresh sweet peas. Indians and settlers ate them as a source of vitamin C to prevent "spring sickness" (scurvy). Like all legumes, redbud turns nitrogen in the air into nitrogen salt that is a plant food.

Black cherry

Identifiers:

- small cherries borne on racemes (long clusters); green in spring, turning red, then dark purple or black.
- bark is smooth with horizontal lines, looks something like dark birch bark. As tree grows, this breaks up into "islands" of smooth bark. Bark on trunks of old trees is blocky, hard and black.

Distinguish from: hackberry. Cherry leaves are thicker and glossier, with dark green on top and very light green on the bottom, and have finer teeth on the edge of the leaf. Cherries are on long racemes, hackberries are solitary. Barks of the two trees are very different.

Very intolerant. Spread by birds, is a pioneer species. Especially common along fence rows, due to birds. Usually occurs as scattered individuals in the forest.

Wood is considered a "fine hardwood", highly prized for its rich reddish heartwood. Used for fine furniture, veneer. The cherries, of course, are prized by birds.

Member of rose family. Leaves contain cyanide and are poisonous to cattle. Cherry is the preferred host of tent caterpillars. In spring, their webs often show at a glance where the cherry trees are.

Black Walnut

Identifiers:

- long compound leaves with many leaflets
- pith in middle of twigs is divided into short chambers
- fruit is hard nut with corrugations encased in a "seamless" green husk.
- large horsehoe-shaped leaf scars with prominent dots, like hickory.

Distinguish from: ailanthus and sumac by fruit, pith, leaf scars on twig, and bark.

Extremely intolerant. Occurs as widely scattered individuals. Prefers rich, deep soil, and is usually found on well-drained riverbottoms and in mountain coves. Growth is very rapid on good sites. Chemical in leaves and roots (juglone) kills many kinds of plants, thus reducing risk of competition.

Heartwood is a rich chocolate brown, highly prized for furniture and gunstocks. Stumps are also used for gunstocks. Walnut trees have brought the highest sale prices of any hardwood tree in America; a single tree reportedly sold in Tennessee for \$50,000.

Walnuts are used as flavoring, and the shells are crushed to make abrasives for, among other things, sandblasting ships' hulls and honing jet turbines. In the old days, the husks were crushed in water, which was poured into streams to kill fish.

Black Locust

Identifiers:

- lacy compound leaves.
- short thorns at base of compound leaves.
- clusters of fragrant white pea-like flowers in May producing flat pea-like pods

A legume, or member of the pea family; converts nitrogen in the air into plant food. Will grow on dry, infertile sites. Planted on reclaimed surface mines.

Locust wood is extremely hard and heavy, and resists decay. It was once widely used for fenceposts and barn poles. Along with hickory, it is the best firewood.

Black locust is sometimes interplanted with black walnut. It fertilizes the soil and "prunes" the walnut timber trees by shading their lower limbs. The locust is later cut out for posts and firewood, or, because it is short-lived, it dies out of the plantation naturally.

Honey Locust

Identifiers:

- very lacy doubly compound leaves (occasional leaves are found that are only compound).
- giant, wicked thorns 3 or 4 inches long.
- very large flat pea-like pods.

Usually a streamside or bottomland tree. Not common. Settlers ground up beans and tried to use them as a coffee substitute. No report on their success, but the practice has not survived. Honey locust flowers produce decent honey.

Sourwood

Identifiers:

- furrowed bark with orange-pink color in the "valleys".
- small sprays of flowers that develop into fruits resembling tiny Japanese lanterns.
- glossy, narrow, oblong leaves with toothed edge, which turn brilliant reds in fall.

Distinguish from:

- blackgum. Leaves look alike except sourwood has tiny teeth around edge of leaf; blackgum has berries; blackgum bark is dark and blocky.
- chestnut oak bark looks very similar to sourwood.

Sourwood is a small to medium-tall shade-tolerant tree very common on the Cumberland Plateau, in East Tennessee, and in the western highland rim. Sourwood honey is excellent.

Eastern Redcedar

Not a true cedar, but a juniper, closely related to the juniper of the arid West.

Evergreen. Easy to identify: pointed, dense crown looks manicured. Bears blue-white berries eaten by birds. Passing thru the bird's digestive tract breaks down the tough seed coat and allows the seed to sprout.

Redcedar's dense foliage provides good shelter from winter weather. Birds use the stringy bark for nests.

One of the most common pioneer trees in many parts of Tennessee; solid stands have sprung up on thousands of acres of abandoned farmland. Middle Tennessee has the largest area of redcedar forest in the U.S..

Very adaptable. It grows on good sites and wet ground, but seems to thrive on dry, thin, rocky soil over limestone. Fairly tolerant when young, and can survive in the understory for years, although it prefers full sun. Does not survive fire well.

Usually grows very slowly; often a tree only a few inches in diameter will be many decades old.

The pioneers found dark forests of redcedar in Middle Tennessee, with trees 100 feet tall and trunks 3 to 4 feet thick. The tree was popular for cabins, fences, and outbuildings because it was highly resistant to decay.

The wood of redcedar is very fragrant, smooth-textured, and a joy to whittle. The heartwood is a beautiful purple or reddish color. Redcedar oil repels insects, so it is used for wardrobes and chests, and the shavings and sawdust are used for pet and chicken bedding. The wood is also used for pencils and novelties. "Cedars" have been popular Christmas trees for generations. Juniper berries are used to flavor gin.

PINES

There are two families of pines: white, or soft pine, represented by eastern white pine in Tennessee, and yellow, or hard pine, which includes virginia, shortleaf, loblolly, pitch, and table mountain pines.

White Pines: Eastern White Pine

Identifiers:

- five needles per bundle.
- needles are slender, blue-green, with white stripe on one side.
- branches grow out of trunk in whorls (rings).

White pine is a tall tree of the eastern mountains and Cumberland Plateau, and is locally native to middle Tennessee. It grows tall and straight, and was once cut extensively for ships' masts. The settlers used it to make coffins, and took seedlings

west with them to grow coffin wood. That is why big old white pines are often found at old housesites and in old churchyards.

White pine wood is soft and does not contain pitch, as yellow pines do. An excellent timber tree, capable of growing over 100,000 board feet per acre in 50 years on the best sites. The nation's best white pine genetic stock is found in Tennessee (Scott County); the State is taking seed from these superior trees and developing even better white pine that grows 40% faster than unimproved trees.

Excellent wildlife tree: dense foliage provides good shelter and cover, seeds provide food.

Tolerant. Easily killed by fire. Becoming more common in areas of east Tennessee where fire has been excluded: seeds in under hardwood forest and gradually grows up and overtops other trees.

The white pine forest resembles the Douglas-fir forest of Washington and Oregon.

Yellow Pines

Identifiers:

- 2 or 3 yellowish needles per bundle (usually)
- branches are staggered on trunk, not in whorls.

The wood of yellow pines is heavy (for pine) and strong, and the long wood fibers make strong paper

Loblolly pine

Loblolly has the longest needles of any Tennessee pine. Native only to the extreme southeast and southwest portions of the state, but has been widely planted for pulpwood and erosion control.

Makes fast growth on a wide variety of soils. Extensively planted on ridges where, economically speaking, it out-performs hardwoods. Loblolly grown in Tennessee is used mainly in the manufacture of newsprint and high-strength paper.

The loblolly was supposedly named after oatmeal. Early settlers from Britain cooked oatmeal in large pots on the transport ships; this oatmeal would bubble, making a sound like "lob-lob", and the bubbles would leave shallow depressions, which were termed "loblollies" ("lolly" used to mean "broth"). The settlers found shallow depressions in the forests of the American South that reminded them of their oatmeal pots. A pine tree grew in these moist depressions. They called it "loblolly pine".

Virginia Pine

The most common pine in Tennessee; has short needles, a limby trunk, and prolific small cones that remain in the treetop. Virginia pine is common on poorer sites in the hills, mountains, bluffs and plateaus of East Tennessee. It often reseeds naturally on abandoned fields.

Virginia pine is sometimes used for lumber, but limbiness decreases its value. Like loblolly, it makes good paper.

Shortleaf Pine

Similar to loblolly pine, except that it has shorter needles, and it grows straighter and more slowly. Its tall, straight, clear trunk makes good sawtimber. Shortleaf was once fairly common on the Cumberland Plateau and in parts of the West Highland Rim, but much has been cut out and little is growing back. Shortleaf needs fire to clear a seedbed; older trees are very fire-resistant. With better fire control over the last 40 years, shortleaf is not reproducing well.

Maximum natural lifespans of some Tennessee trees:

White oak, sycamore, white pine.....	500-600 years
Beech.....	300-400
Redcedar, loblolly pine, yellow-poplar, sweetgum.....	300
Shagbark hickory.....	250-300
Northern red oak, sugar maple.....	200-300
Black walnut.....	250
Black oak.....	200
Black cherry.....	150-200