

"THIS MAP SHOWS GEOGRAPHIC AREAS OF NORTH CAROLINA REFERRED TO IN DESCRIBING WHERE CERTAIN TREES ARE FOUND."



Published by THE NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

North Carolina State University at Raleigh, North Carolina Agricultural and Technical State University at Greensboro, and the U.S. Department of Agriculture, Cooperating, State University Station, Raleigh, N. C., Chester D. Black, Director. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. The North Carolina Agricultural Extension Service offers its programs to all eligible persons regardless of race, color, or national origin, and is an equal opportunity employer.

3-85-4M

(Reprint)

4H M-14-3

12-87-5M-5T

TREE IDENTIFICATION MANUAL FOR 4-H MEMBERS

Trees are an important part of our everyday life. We use them for thousands of things, ranging from houses to live in to beautiful rayon cloth for clothing and imitation vanilla to flavor our food. Wherever we look we see trees. Each kind of tree can be recognized just like we recognize people, by its individual characteristics. Many trees can be recognized by the shapes of their leaves. Only a person with special training could expected to know all of the 185 different kinds of trees in North Carolina, but anyone can learn to recognize a good number of trees with only a little attention to them. Try it; vor!l find it's very easy and interesting.

CHARACTERISTICS TO LOOK FOR

LEAF TYPES LEAF ARRANGEMENT

Simple leaf - one piece

more than 1 piece each piece a leaflet

Compound leaf -



Alternate Opposite leaves leaves

i.e. maple, oak i.e. hickory, ash elm black locust

i.e. oak, willow

i.e. maple, dogwood

LEAF MARGINS









black gum

Useful definitions:
smooth leaves — not hairy

hairy leaves - with hairs on surface leathery - thick and very tough above - when used in describing leaf, meaning upper surface below - when used in describing leaf, meaning lower surface ornamental - used as decoration or shade tree bracts - modified leaf of flower cluster

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Eastern White Pine Pinus strobus



5 needles in cluster, 2½" to 5" long, blue green Wood: light, not strong, soft Uses: boxes, matches, patterns, millwork, caskets Found naturally only in mountains and Western Piedmont

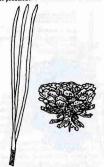
Pitch Pine Pinus rigida

3 needles in cluster, stout, 3" - 6" long Cones 1½" - 3" long not prickly Wood: light, soft, not strong, brittle, coarse-grained Uses: fuel, lumber, pulpwood Found only in upper piedmont and mountains

Pond Pine Pinus sertotina

3 needles in cluster, 6" - 8" long Cones 2" - 2½" long, not prickly, shape and size of guinea egg when closed, cone-shaped when open Wood: resinous, heavy, soft, brittle Uses: pulpwood, lumber Common on wet land of coastal plain Lobioly Pine
Pinus taeds

3 needles in cluster, 6" - 9" long Cones 3" - 5" long with sharp prickles Wood: brittle, coarse-grained, not durable Uses: all types lumber, pulpwood Common in constal plain and lower half of piedmont.



Longleaf Pine Pinus palustris



3 needles in cluster 10" - 15" long Cones 5" - 10" long prickly Wood: heavy, very hard, strong, durable Uses: turpentine, all types lumber, pulpwood Found in coastal plain and lower piedmont

Table-Mountain Pine Pinus pungens

2 needles in cluster, strong, 11/2" - 31/2" long; cones heavy, 3" long with very strong spines

Wood: light, brittle, very coarse—grained Uses: pulpwood, lumber Found in mountains only



Virginia Pine Pinus virginiana

2 needles in cluster, stout, twisted, 2" - 3" long; bark brown



Cones 2" long, very prickly; branches and cones clinging to tree many years after dead



Wood: light, soft, not strong, brittle Uses: lumber, pulpwood

PINACEAE - Pine Family



ties, posts fences Grows in swamps and wet places of coastal plain

Atlantic White Cedar or Juniper Chamaecyparis thyoides



Wood: light, soft, brittle, coarse-grained Uses: construction, boxes and crates, pulpwood, ornamental; bark is source of tanin Found only in the mountains

Grows in wet places of coastal plain

Leaves scalelike, 1/16" - 1/8" long, dall blue green Branch sprays flattened Wood: light, soft, not strong, close-grained, peculia odor, light brown, durable Uses: lumber for siding, porches, small boats, tanks, poles, shingles

Grows on well drained land most common in piedmont and mountains

Eastern Redcedar
Juniperus virginiana

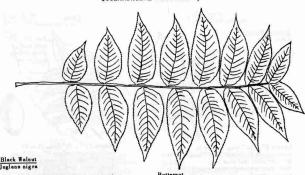
to twigs that are rounded or squared, needlelike on new growth, dark blue green Wood: light, brittle, dull red, fragrant, durable poets, wardrobes, chests, closet linings, pencils, furniture polish, medicine, Christmas-trees

Leaves scalelike, 1/16" long, clinging

SALICACEAE - Willow Family Weeping Willow Salix babylonica Black Willow Salix nigra Leaves 2" - 6" long Branches very limber, hanging Wood: light, soft, weak Leaves 25" - 5" long Uses: ornamental Wood: light, soft, weak, reddish-brown Uses: boxes, baskets, caskets, artificial limbs E. Cottonwood Populus deltoides Swamp Cottonwood Populus heterophylla Leaves heart-shaped, 4" - 7" long Leaf stem flattened Leaves triangular, 3" - 6" long Wood: light, soft, weak Uses: baskets, boxes veneer, cheese boxes, pulpwood Wood: light, soft, not strong

Uses: same as E. Cottonwood

JUGLANDACEAE - Walnut Family



Juglans nigra

Leaves 12" - 24" long, often even number of leaflets with no leaflet on end Bark dark brown to black

Nuts round

Wood: heavy, hard, strong, very durable dark brown

Uses: furniture, gun-stocks, edible nuts

Butternut Juglans cinerea

Leaves 15" - 30" long, odd number leaflets, with leaflet on end

Bark light gray

Nuts football-shaped

Wood: light, soft, not strong, light-brown Uses: furniture, shade, edible nuts



Carya laciniosa

Leaves 12" - 24" long, 5-9 leaflets, usually 7, velvety, hairy below, end leaflet 5" - 9" long, 3" - 5" wide Bark light gray, separating into broad thick pieces often 3' - 4' long, hanging loosely Wood: heavy, very hard, strong, tough,

very flexible Uses: same as mockernut hickory Leaves 6" - 10" long, stem of leaf hairy, 7 or 9 leaflets about 1" wide, 3" - 6" long Buds, yellowish Nuts, bitter, flattened

Bark, reddish-brown, separating into small thin flakes

Wood: heavy, very hard, strong, tough Uses: boxes and crates, furniture, flooring

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JUGLANDACEAE - Walnut Family

Shagbark Hickory Carya qvata

Leaves 8" - 14" long, usually 5, sometimes 7; leaflets, 5" - 7" long, 2" - 3" wide; leaf stem hairy Bark, light grey, separating in thick pieces, often 1' or more long and 6" - 8" wide, attached to trunk in middle Wood: same as mockernut

Wood: same as mockernut Uses: same as mockernut



Leaves 12" - 20" long, 11 to 17 lance-shaped leaflets 2" - 7" long, 1" - 3" wide. Leaf stem yellowish. Wood: heavy, hard, not as strong as other hickories, leas valuable than wood of most hickories Uses: boxes, crates, furniture, flooring, amoking meats, excellent shade tree. The pecan is native of the Mississippi Valley. Trees with small, hard nuts are original variety. Bred up varieties have been budded onto roots of this tree.



Leaves 8" - 20" long, 5 to 9 leaflets, densely hairy below; terminal buds very large, wooly, hairy; new twigs very hairy

Wood: very heavy, hard, strong, tough, flexible

Uses: world's best wood for tool handles, also fuel, smoking meats, vehicle parts, picker sticks in cotton mills



Leaves 8" - 12" long, 5 to 7 leaflets, 4" - 6" long, 2" - 3" wide, without hairs below or hairy on midrib; note shape of aut hall Bark, not loose

Wood: same as mockernut Uses: same as mockernut

BETULACEAE - Birch Family

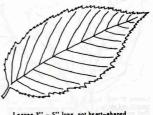
Sweet Birch Betula lenta



Leaves 2½" - 5" long, heart-shaped at base Twigs dark reddish-brown, odor of winter-green Bark of larger trees not loose in papery layers Wood: same as Yellow birch

Uses: same as Yellow birch

Yellow Birch Betula alleghaniensis



Leaves 3" - 5" long, not heart-shaped

at base Twigs silvery or yellowish, odor of wintergreen

Bark on larger trees coming loose in

papery layers
Wood: heavy, very strong, hard
Uses: furniture, flooring, boxes, baskets, crates, handles, spools, bobbins

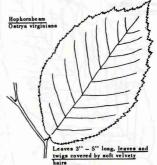
River Birch Betula nigra



leaves somewhat triangular Bark gray to reddish-brown, coming loose in papery layers

Tree of wet soil along streams Wood: light, rather hard, strong, light brown

Uses: erosion control, furniture, woodenware



hairs Bark similar to red cedar Wood: strong, hard, tough, brownish Uses: tool handles, fence posts, mallets

JUGLANDACEAE - Walnut Family

Shagbark Hickory Carya ovata



Leaves 8" - 14" long, usually 5, sometimes 7; leaflets, 5" - 7" long, 2" - 3" wide; leaf stem hairy Bark, light gray, separating in thick pieces, often 1' or more long and 6" - 8" wide, attached to trunk in middle Wood: same as mockernut Uses: same as mockernut

Carya illinoensis



Leaves 12" - 20" long, 11 to 17 lance-shaped leaflets 2" - 7" long, 1" - 3" wide. Leaf stem yellowish. Wood: heavy, hard, not as strong as other hickories, less valuable than wood of most hickories Uses: boxes, crates, furniture, flooring, smoking meats, excellent shade tree. The pecan is native of the Mississippi Valley. Trees with small, hard nuts are original variety. Bred up varieties have

been budded onto roots of this tree.

Mockernut Hickory



Leaves 8" - 20" long, 5 to 9 leaflets, densely hairy below; terminal buds very large, wooly, hairy; new twigs very bairy

Wood: very heavy, hard, strong, tough, flexible

Uses: world's best wood for tool handles, also fuel, smoking meats, vehicle parts, picker sticks in cotton mills



Leaves 8" - 12" long, 5 to 7 leaflets, 4" - 6" long, 2" - 3" wide, without hairs below or hairy on midrib; note shape of nut hull Bark, not loose Wood: same as mockernut

Uses: same as mockernut

BETULACEAE - Birch Family

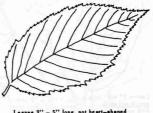
Sweet Birch Betula lente



Leaves 2½" - 5" long, heart-shaped at base
Twigs dark reddish-brown, odor of winter-green
Bark of larger trees not loose in papery layers
Wood: same as Yellow birch

Uses: same as Yellow birch

Yellow Birch Betula alleghaniensis



Leaves 3" - 5" long, not heart-shaped at base

Twige silvery or yellowish, odor of wintergreen

Bark on larger trees coming loose in

papery layers
Wood: heavy, very strong, hard
Uses: furniture, flooring, boxes, baskets, crates, handles, spools, bobbins

River Birch Betula nigra

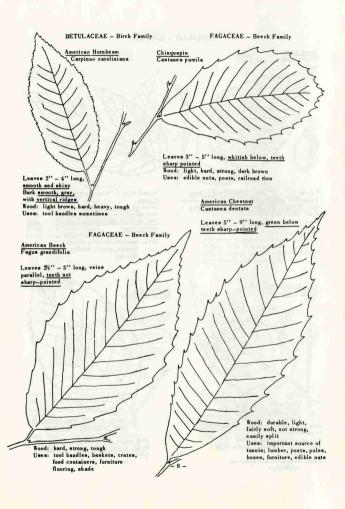


wedge-shaped at base, leaves somewhat triangular Bark gray to reddish-brown, coming loose in papery layers Tree of wet soil along streams

Wood: light, rather hard, strong, light brown Uses: erosion control, furniture, woodenware

Hophornbeam Ostrya virginiana Leaves 3" - 5" long, leaves and twigs covered by soft velvety

hairs
Bark similar to red cedar Wood: strong, hard, tough, brownish Uses: tool handles, fence posts, mallets



Southern Red Oak Quercus falcata



Wood: hard, strong, not durable, light red in color Uses: lumber, shade, railroad ties

Northern Red Oak
Quercus rubra
Leaves 5" - 9" long,
smooth below



Black Oak
Quercus velutina

Leaves 4" - 10" long,
brown wooly bairs below
Brown wooly bairs below
Road: heavy, bard,
strong, coarse—grained
Uses: low-grade lumber,
realroad ties, tannic acid from bark

Scarlet Oak
Quercus coccinea

Leaves 3" - 6" long; note closed,
notchea, lobes
kroader toward
end

Weod: heavy, hard, coarse—grained, strong ilsee: lumber, railroad ties,

shade

FAGACEAE - Beech Family

Water Oak Quercus nigra



Leaves 1½" - 5" long, thin, tufts of hairs along veins Wood: heavy, hard, strong, light-brown Uses: lumber, railroad ties, shade



Blactiact Oak
Quercus marificadics

thick, tough, many brownish hairs below Wood: heavy, hard, strong, dark brown Uses: fuel, charcoal

Leaves 3" - 7" long.





Leaves 6" - 8" long
Acorn almost covered by cup
Wood: heavy, hard, strong Uses: lumber, railroad ties

Post Oak Quercus stellata

Leaves 4" - 8" long Bark, gray



Wood: very heavy, hard, durable Uses: lumber, posts, railroad ties

White Oak Quercus alba

Uses: tight

barrels, vencer, furniture, railroad Leaves 4" - 9" long, Bark, whitish-gray Wood: strong, very heavy.
hard, tough, durable
Uses: most important lumber tree of oaks for high-grade lumber

Sand Post Oak
Quercus stellata var. Margaretta Leaves 24" - 5" long Grows usually on sandy land



Wood: similar to post oak Uses: fuel

FAGACEAE - Beech Family

Water Oak Quercus nigra



Leaves 1½" - 5" long, thin, tufts of hairs along voins Wood: heavy, hard, strong, light-brown Uses: lumber, railroad ties, shade



Usually found on dry sandy soils of coastal plain.

Blackjack Oak Quercus marilandica



Wood: heavy, hard, strong, dark brown Uses: fuel, charcoal



FAGACEAE - Beech Family



Leaves 6" - 8" long
Acora almost covered by cup
Wood: heavy, hard, strong
Uses: lumber, railroad ties

Post Oak
Quercus stellata
Leaves 4" - 8" long
Bark, gray

Food: very heavy, hard,

Wood: very heavy, hard, durable Uses: lumber, posts, railroad ties White Oak
Quereus alba

Uses: tight
barrels, vessers,
furniture, railroad
ties

Leaves 4" - 9" long,
Bark, whitish-gray

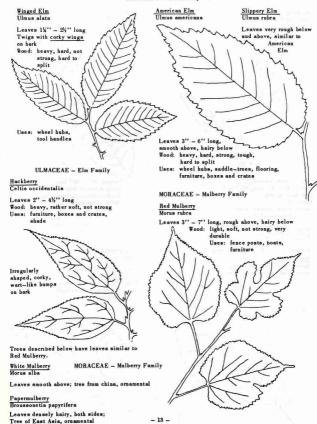
Bark, whitish-gray
Wood: strong, very heavy,
hard, tough, durable
Uses: most important lumber tree of
oaks for high-grade lumber

Sand Post Oak
Quercus stellata var. Margaretta
Leaves 2%" - 5" long
Grows usually on sandy land

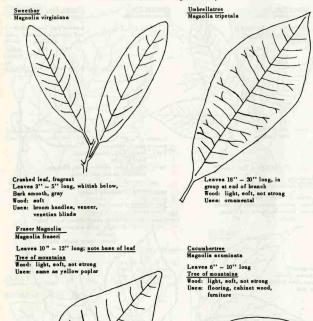


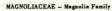
Wood: similar to post oak Uses: fuel

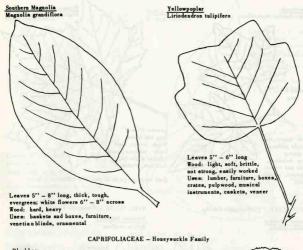
ULMACEAE - Elm Family

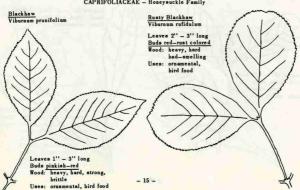


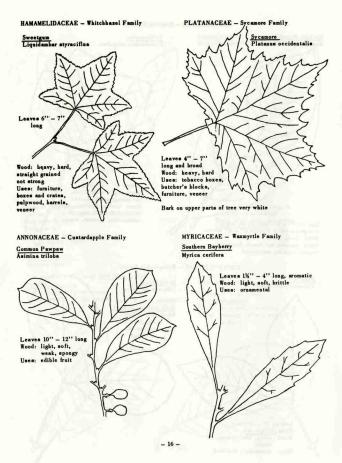
MAGNOLIACEAE - Magnolia Family

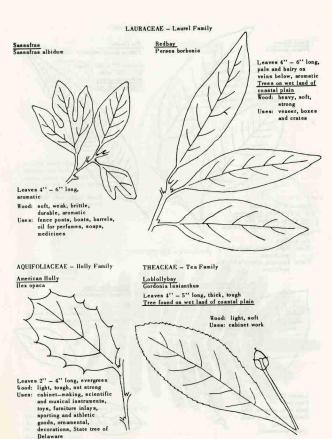


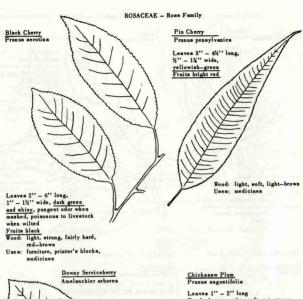


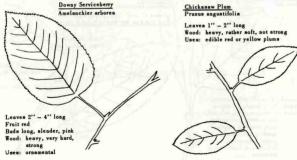












ROSACEAE - Rose Family

Hawthorn Crataegus sp. (800 species)



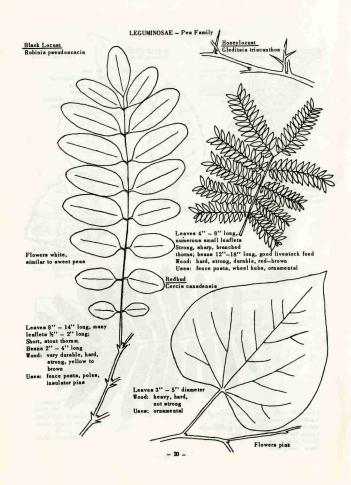
Leaves many shapes and sizes Recognized by long, slender, very sharp thorns and small apple like, yellow to red or black fruits Uses: ornamental Sweet Crab Apple Malus coronaria

> Leaves 2'' - 3'' long Blunt spur-like lateral branches Blunt spur-like lateral oranches have appearance of thorns Apples about 1" diameter Wood: heavy, not strong, light-red Uses: edible fruit, tool handles, small articles

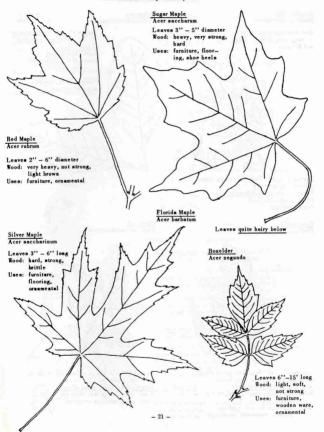
LEGUMINOSAE - Pea Family



Leaves 6" — 15" long, twice compound with hundreds of small leaflets Known for delicately beautiful pink flowers Fruits, flat beans 3" — 4" long Native of East Asia Uses: ornamental



ACERACEAE - Maple Family



ERICACEAE - Heath Family

Sourwood Oxydendrum arboreum Leaves 5"-7" long, 1"-3" wide, short stiff, bairs on margin and midrib Uses: important source of honey Fruit: a dry, bell-ahaped capsule in long bunches

STYRACACEAE - Snowbell Family

Silverbell Halesia carolina

Leaves 3".5" long,
1½"-3" wide
Wood: light, soft
Uses: oramental
Fruit nut-like,
1½"-2½" long,
with 4 narrow
winge length—
wise

EBENACEAE - Ebony Family



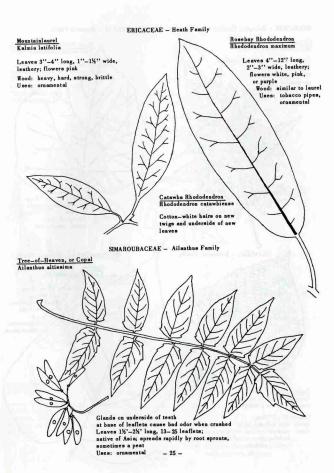
SYMPLOCACEAE - Sweetleaf Family

Common Sweetleaf
Symplocus tinctoria
Leaves 5"-6" long,
1"-2" wide, sweet
to taste,
thickened

Wood: light,
soft, redbrown
Uses: Yellow dye,
medicines

Fruit: '3'' long, approx. '4'' in diameter for entire length, turning blue to brown at maturity

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NORTH CAROLINA LAWS FOR

PROTECTION OF FLOWERS, TREES, ETC.

STATE FLOWER

145-1. Dogwood Adopted as Official Flower.--The Dogwood is hereby adopted as the official flower of the State of North Carolina. (1941, c. 289)

PROTECTION OF WILD FLOWERS, SHRUBBERY, ETC.

14-128. Injury to Trees, Woods, Crops, Etc., Near Highway.—Any person, not being on his own lands, or without the consent of the owner thereof, who shall, within one hundred yards of any State highways of North Carolina or within a like distance of any other public road or highway willfully commit any damage, injury or spoliation to or upon any tree, wood, underwood, timber, garden, crops, vegetables, plants, lands, springs, or any other matter or thing growing or being thereon, or who cuts, breaks, injures, or removes any tree, plant, or flower within such limits, or shall deposit any trash, debris, garbage, or litter within such limits, shall be guitty of a misdemeanor, and upon conviction fined not exceeding fifty dollars (\$50) or imprisoned not exceeding thirty days: Provided, however, that this Section shall not apply to the officers, agents, and employees of the State Highway and Public Works Commission or county road authorities while in the discharge of their duties. (1924, c.54)

VENUS FLY TRAP LAW

14-129.1. To Prevent Extinction of the Venus Fly Trap Plant.—In order to prevent the extinction of the rapidly disappearing rare and unique plant known as the Venus Fly Trap (Dionaea Muscipula), it shall be unlawful for any person, firm or corporation to sell or barter or to export for sale or barter, any venus fly trap plant or any part thereof. Any person, firm, or corporation violating the provisions of this Section shall be guilty of a misdemeanor and shall be fined or imprisoned in the discretion of the court: Provided, this Section shall not apply to the sale or exportation of the venus fly trap plant for the purposes of scientific experimentation or study when such sale or export for such purposes has been authorized in writing by the Department of Conservation and Development. (1951, c. 367, s. 2)

TAKING, ETC., OF CERTAIN WILD PLANTS FROM LAND OF ANOTHER

14-129.—No person, firm or corporation shall dig up, pull up or take from the land of another or from any public domain, the whole or any part of any Venus Fly Trap (Dionaea Muscipula), trailing arbutus, American holly, white pine, red cedar, hemlock or other coniferous trees, or any flowering dogwood, any mountain laurel, any rhododendron, or any ground pine, or any Christmas greens, or any Judas tree, or any leucothea, or any azalea, without having in his possession a permit to dig up, pull up or take such plants, signed by the owner of such land or by his duly authorized agent. Any person convicted of violating the provisions of this section shall be fined not less than ten dollars (\$10.00) nor more than fifty dollars (\$50.00) for each offense. The provisions of this section shall not apply to the counties of Avery, Cabarus, Catreet, Catawba, Cherokee, Chowan, Cumberland, Currituck, Dare, Duplin, Edgecombe, Franklin, Gaston, Granville, Hertford, McDowell, Mitchell, Pamlico, Pender, Person, Richmond, Rockingham, Rowan, and Swain. (1941, c.255; 1951, c.367, s.l; c.251 and c.962 1955 Session Laws)