

Order	Common Name	Scientific Name	Characteristics	Location	Grid	Notes
21	White Oak	<i>Quercus alba</i> (Fagaceae)	<b>Bark:</b> shaggy-scaly flaky grey-whitish <b>Leaf:</b> alternate, simple, 7-(9)-11 deeply-divided rounded lobes (finger-like), pale grey beneath; deciduous <b>Flower:</b> monoecious; male catkins; female axillary spikes, at leaf-out <b>Fruit:</b> .75-1" elongated smooth acorn, brown, with shallow warty-scaly cap, with or without short stalk, singly or pairs, fall	CG lawn near treehouse, burm in S end AT	H10, T8	60-80 ft tall, E USA in wide range of habitats, white oak group, purplish fall color
22	Cucumber Magnolia	<i>Magnolia acuminata</i> (Magnoliaceae)	<b>Bark:</b> smooth with prominent lenticels, light grey (pebbly) <b>Leaf:</b> alternate, simple, large (6-12") broadly elliptic-obovate, thin, fuzzy petiole and undersides, wavy margins; deciduous <b>Bud:</b> valvate, fuzzy <b>Flower:</b> monoecious, green-yellow, slightly fragrant, 2-3" bell-shaped, 9 elliptic curled petals, spring <b>Fruit:</b> cone-like cluster of follicles (looks like lumpy cucumber), releases red-coated seeds in fall	N Azalea Trail by 1st bridge, adjacent to the Demonstration Vegetable Garden	K11	50-80 ft; native to low/moist site in E USA (northern-most range for Magnolia), branches held horizontally with prominent branch collars and distinct swollen shoulder wrinkles
23	Bigleaf Magnolia	<i>Magnolia macrophylla</i> (Magnoliaceae)	<b>Bark:</b> Smooth & pebbly, noticable bark ridge/branch collar <b>Leaf:</b> alternate, simple, huge (24-32") obovate w/ auriculate base, thin, fuzzy petiole and undersides, wavy margins, (may be whorled at end of twig); deciduous <b>Bud:</b> valvate, fuzzy <b>Flower:</b> monoecious, white, fragrant, 10-16" cup-shaped, 9 elliptic petals, summer <b>Fruit:</b> cone-like ovoid-round cluster of follicles, releases red-pink coated seeds in fall	N of Fern Glade, behind back bathrooms	K9	30-40 ft; open, upright symmetrical habit native to low/moist sites SE USA (interior) still fairly uncommon within its range, largest simple leaf of any spp. native to USA, <i>M. ashei</i> is smaller/shrubber version
24	Mockernut Hickory	<i>Carya tomentosa</i> (Juglandaceae)	<b>Young Bark:</b> smooth, grey <b>Older Bark:</b> grey, narrow/shallow to prominent (rough) ridge & furrow w/irregular interlacing (diamond pattern) <b>Twig:</b> thick & velvety <b>Leaf:</b> alternate, odd-pinnately compound, (7)-9 rounded leaflets, terminal leaflet is largest, fine serrations, rachis & leaflets very pubescent (fuzzy), fragrant when crushed; deciduous <b>Bud:</b> big imbricate (overlapping scales) terminal bud, <b>Flower:</b> inconspicuous, honey colored, monoecious <b>Fruit:</b> nut surrounded by a thick, very hard round seamed husk, inedible	between Hammocks and Nature Trail, on the Shade Border	L8	60-80ft; taproot, native to dry upland to intermediate sites from New England to SE, long lived (200-400 yrs); good yellow fall color; typical hickory used in smoking or grilling meat
25	Sweetbay Magnolia	<i>Magnolia virginiana</i> (Magnoliaceae)	<b>Bark:</b> Smooth & pebbly, noticable bark ridge/branch collar <b>Leaf:</b> alternate, simple, 3-5" lanceolate w/blunt tip, flexible, silver fuzzy undersides, sweet smell when crushed, fuzzy petiole; semi-evergreen <b>Bud:</b> valvate, fuzzy <b>Flower:</b> monoecious, white, fragrant, 3" cup-shaped (smaller than S. Magnolia), spring <b>Fruit:</b> cone-like ovoid cluster of follicles, releases red-coated seeds in fall	E side of Trillium Education Garden/ S end Nature Trail	N8	Usually 10-30 ft, but can reach 60 ft; native to low/moist sites in coastal SE up to TN & New England, shrubby form, often multi-trunked w/narrow crown, <i>not</i> the bay you cook with

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26	Osage Orange	<i>Maclura pomifera</i> ( <i>Moraceae</i> )	<b>Bark:</b> deep ridge & furrow, orange tones in the brown <b>Twig:</b> often have thorns, milky sap <b>Leaf:</b> alternate, simple, entire, ovate w/attenuate tip, clusters of 6-8 leaves may be held on spurs; deciduous <b>Flower:</b> inconspicuous, dioecious (separate male & female plants), spring <b>Fruit:</b> large green spherical cluster of achenes (horse-apples, look like softball sized brains) in the fall	S end Nature Trail	O8	20-40 ft (small tree); asymmetrical crown, often as wide as tall, branches "arch" repeatedly (bowed), forms thickets, small range in SE USA, tolerant of high pH, yellow dye can be made from bark
27	Witchhazel	<i>Hamamelis virginiana</i> ( <i>Hamamelidaceae</i> )	<b>Bark:</b> grey-brown, smooth to scaly <b>Twigs:</b> zig-zag, hairy <b>Leaf:</b> alternate, simple, entire, elliptic-obovate, irregular wavy margins, inequilateral base, 3-6 " long; deciduous <b>Flower:</b> monoecious, 3/4" yellow strap-like curled petals, in clusters of 3 in late autumn-winter (after leaf drop), very fragrant, <b>Fruit:</b> 1/2: long capsule, green ripening to brown, 1-2 seeds are ejected after 1 year ripening period	mid upper Dogwood Trail, N end Azalea Trail by 1st bridge	L6, P8	15-30 ft; E USA; small tree or shrub, often with multiple trunks, good yellow fall color
28	Sassafras	<i>Sassafras albidum</i> ( <i>Lauraceae</i> )	<b>Bark:</b> shallow brown ridge & furrow, peels up on sides slightly, spicy fragrance <b>Twigs:</b> smooth, green, prominent lenticels <b>Leaf:</b> polymorphic (3 types; mitten, 3-lobed, and wide elliptical) entire margins, thin/flat fragrant leaves; deciduous <b>Flowers:</b> dioecious, inconspicuous, yellow-green in tight clusters at twig tips, <b>Fruit:</b> long-stalked black drupe	Garden of Hope, Nature Trail, Sassafras Grove	O6	30-50 ft; native to E USA, excellent orange-red fall color, medicinal uses, rootbeer, susceptible to Laurel Wilt disease spread by Ambrosia Beetle
29	Shortleaf Pine	<i>Pinus echinata</i> ( <i>Pinaceae</i> )	<b>Bark:</b> grey-brown, relatively small platelet with moderately deep fissures <b>Twigs:</b> purple new growth <b>Leaf:</b> usually 2-(sometimes) 3 needles per fascicle, strait, flexible, needles up to 4", 1/4" bundle sheath, clustered at tips of branches; evergreen <b>Fruit:</b> "monoecious", (1)- 3" cone, grey-brown, stalked, clustered, short prickles, retained for a long time	N end upper Dogwood Trail	L6	70-100 ft tall; native to SE USA; taproot, may have serpentine branches; susceptible to southern pine bark beetle
30	Loblolly Pine	<i>Pinus taeda</i> ( <i>Pinaceae</i> )	<b>Bark:</b> large, grey-brown platelet with deep fissures <b>Twigs:</b> purple new growth <b>Leaf:</b> 3 needles per fascicle (rarely 2), slender, stiff, often twisted, 6-9" long, .5-1" long bundle sheath, clustered at tips of branches; evergreen <b>Fruit:</b> "monoecious", up to 2-6" cone, light brown, ovoid, often stalk-less, backward pointed prickles, retained for multiple seasons	N end upper Dogwood Trail	L6	80-100 ft tall; native to SE USA (mostly coastal states); prefers low/moist sites, but is adaptable to wide range of conditions; taproot