Trees for the Landscape: Selection and Culture

THE UNIVERSITY OF GEORGIA
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Introduction

Trees grow and become dominant in a landscape. You may not be as aware of large trees as you are of some other eye-catching plants, but trees do have a dramatic effect on other landscape materials. Larger trees, and where they are located, determine sunlight for shrubs, turf and ground covers. As you drive through a residential area, notice how the presence or absence of trees affects how much you see of the individual homes.

Trees serve a number of functions. They provide shade, filter pollutants, provide background and enclosure, exchange oxygen for carbon dioxide, block winds or channel breezes, frame or hide views, reduce noise, prevent erosion and define outdoor spaces. Studies show that trees even enhance and increase the resale value of a house.

Selecting the Right Tree

No doubt about it, trees are an investment. Most trees are slow growing; it takes a number of years for them to mature. So, first consider trees when developing a landscape plan. Because trees differ in form (shape), texture and seasonal color, they should be selected and planted with care.

The outline or silhouette of a tree is its form. The basic tree forms are: rounded, oval, spreading, pyramidal, columnar, weeping and vase-shaped.

Rounded

Oval

Spreading

Pyramidal

Columnar

Weeping

Vase

Rounded, oval and spreading forms are prominent in trees native to Georgia and the southeastern United States. Most new trees in the home landscape should have one of these forms; it helps them relate to existing trees. These forms offer a wide selection of trees with interesting characteristics. Several of them, dogwood and red maple, for example, are rich in seasonal color.

Examples of rounded trees are the goldenrain tree, red maple, crabapple and loquat. Some examples of oval trees are the Bradford pear, river birch, sourwood and sugar maple. Spreading trees include the laurel oak, live oak, Chinese pistache and double flowering peach.

Use the other forms—pyramidal, vase-shaped, columnar and weeping—with restraint. Because of their contrasting silhouette, they serve best as accent plants. Locate these forms well away from other trees. An exception to this rule involves using pyramidal-shaped trees in a background grouping or windbreak. Pyramidal, columnar and vase-shaped trees lead the eye upward. They are excellent for breaking up long, monotonous, horizontal lines. The strong hanging lines of weeping trees lead the eye back to the ground. This form is a nice contrast in front of buildings with strong vertical lines or long, blank walls. Of course, a specimen weeping willow is always at home at the water's edge.

Examples of pyramidal trees are cryptomeria, deodar cedar, Leyland cypress and southern magnolia. Columnar trees include the "Columnare" red maple, "Princeton Sentry" ginkgo and "Temple's Upright" sugar maple. The contorted willow, weeping willow and Yoshino cherry are examples of weeping trees, while the "Parkview" zelkova, purple-leaf plum and vitex are some examples of vase-shaped trees.

Texture is the visual feel of a plant. It is determined by the size, shape and arrangement of leaves. Plants have either a fine, medium or coarse texture. Trees with small, smooth, widely spaced leaves are fine-textured. The opposite arrangement—large, rough and closely spaced leaves—indicates a coarse-textured tree. Most trees are either medium or coarse. Texture also influences the degree of shade. Use fine textured trees for filtered shade. Slash or loblolly pine and thornless honey locust are good examples of this type. Medium and coarse textured trees usually cast a much deeper shade. For more information on the influence of texture in landscape design, refer to "Planning Your Home Landscape," Extension Bulletin 673.

Be careful with color. Do not select trees for seasonal effect (i.e., a strong, flashy color) without considering the entire setting. It is acceptable for a color to stand out, but it also should compliment or offer a pleasing contrast to the overall color scheme.

Fitting into the Plan

The distance or space between new trees is very important. A landscape changes dramatically—though slowly sometimes—as trees grow. Refer to Figure 1 and Figure 2.

Figure 1
Magnolia Has Little Impact in the Landscape

Figure 2
Eight Years Later, Magnolia Has an Impact in the Landscape

Let desired effects and tree species determine spacing. Trees in a windbreak, planting screen or thick background should be closer together: for example, cherry laurels might be 8 to 12 feet apart, while southern magnolias can be 15 to 20 feet apart. Pines planted to create a broad expanse of filtered shade can be 15 to 20 feet apart. If you want deeper shade, plus a pinestraw mulch, plant these trees as close as 10 to 12 feet apart. Large, free-standing specimen trees (such as oaks) should be at least 20 to 30 feet from the house and 40 to 50 feet apart. For additional information on spacing, refer to "Spacing Plant Material: Trees," Extension Leaflet 135.

Trees have many uses in the landscape. Shade may be one of the most important. Leaf size and the density of the tree's canopy determine the amount of shade. Large shade trees are tall enough to shade the roof of a two-story house. Medium-sized threes are large enough to shade the roof of a one-story dwelling or the walls of a two-story building. Small trees will shade an outside wall of a one-story house.

Specimen or accent trees are used in the landscape because of some outstanding characteristics. It may be form, flower, fall color, berries or unusually attractive foliage.

Cultural Considerations

Selecting and Purchasing a Tree

The care given to a tree before and during planting has a great influence on the long-term performance of the tree. Also, you will want to consider a number of factors when selecting a tree.

Trees are grown and sold in one of three ways: bare-rooted, balled and burlapped (B & B) or container grown. Each method has advantages and disadvantages.

Bare-root trees are field grown and are generally small (4–6') when harvested. The harvesting procedure involves cutting and heaving the tree out of the ground. This greatly reduces the root system and leaves no soil around the remaining roots. Bare-root trees are then stored in a cold, moist environment until they are shipped to the retailer. At the retail center the trees are "heeled" into a substance, usually pine bark or sawdust, that keeps the roots moist. It is important to select bare-root trees with a relatively large amount of roots that have been kept moist. Bare-root trees should be planted in late winter, generally late January to late February, to allow a new root system to form before the first flush of spring growth in March. Do not purchase bare-root trees after the leaves have emerged.

As with bare-root trees, balled and burlapped (B & B) trees are also field grown but are generally much larger (usually more than 6') when harvested. Unlike bare-root trees, however, the tree is dug by hand or machine with a "ball" of soil around the roots. Root loss is still severe but more roots are harvested. The root ball is wrapped and secured with burlap and twine. Very large trees are mechanically dug and placed in a burlap-lined wire basket. It is best to remove the basket before planting. Compared to bare-root trees, B & B trees have a better survival rate but are more expensive. B & B trees can be planted later in the year than bare-root trees, but it is best to transplant them from late fall to early spring. Carefully determine if the soil ball has been broken when selecting B & B trees. Reject any B & B tree with a broken soil ball.

Container-grown trees come in a variety of sizes. The container sizes are commonly referred to as "gallons," with typical sizes from one to five gallons. The advantage of a container-grown tree is in having a root system that was not disturbed by harvesting. Container-grown trees can be planted at any time, but early fall or early spring are the ideal times to plant. Be sure to check for root girdling in the container. Because of the dynamics of the root-container shape system, root systems often develop a circular pattern within the container. Although this circular root growth is normal and can be remedied by breaking the root ball up slightly when planting, a severely root-girdled tree should be avoided.

In the future, consumers may see garden centers carrying trees grown in fabric bags. Fabric bags are a recent innovation. The bag is made of a petroleum-based material that does not decompose in the ground and must be removed before planting. It helps concentrate roots and makes harvesting easier. Fabric bags are used in field shade tree production.

Soil Preparation

Soil preparation is important to ensure that the tree will perform at its best. The ability of the tree roots to grow out into the surrounding soil greatly determines how the plant will perform in the years to come. A large planting hole with well-worked backfill soil will produce satisfactory results. Organic soil

amendments placed in the planting hole will not produce a superior tree. Research indicates that the best use of organic materials, such as ground pine bark, is as a mulch. Amending an entire bed with organic material may be beneficial.

Planting

The method of production determines the season that you plant the tree, but regardless of the time of year, there are some general rules to follow. As noted, dig a large hole. At the very least, it should be twice the width of the root ball to be planted and half again as deep. A larger hole will promote even better root growth. Additionally, the tree should be planted at the proper depth. For container-grown material, this depth would be the same level as the soil in the can. The planting depth for B & B should be the top of the root ball, and for bare-root, it will generally be at the junction between the top of the root crown and the main stem. Laying a stick across the top of the hole will help you judge the proper planting depth. To prevent or compensate for any settling, either firm some backfill soil at the bottom of the hole on which to set the plant or plant the tree slightly high. Planting too deep will result in disappointing growth or even death.

Potbound container-grown trees should have their root systems broken up slightly before planting. B & B trees should have the string securing the ball cut from around the truck after it is in place. This is to prevent strangulation of the stem by the sting in the years to come. The burlap *does not* need to be removed.

After positioning the plant, replace the backfill soil. The soil should be replaced firmly but never packed. After backfilling, a ring of soil should be formed on top of the ground. This "dike" will help hold water and allow it to soak down slowly instead of running off. If excessive rainfall occurs after the initial watering, the dike can be broken to prevent overwatering. Organic material, such as pine bark or pinestraw, should be used as a mulch at the depth of two to three inches.

Depending on the fertility of the soil, fertilizer may be applied at this time. Trees should receive two tablespoons of a 12 to 16 percent nitrogen fertilizer (e.g., 12-4-8, 16-4-8) per inch of trunk diameter. Apply in March and July during the first season. Do not apply large amounts of fertilizer until the trees are established, usually after the first year. Spread the fertilizer evenly over the surface where the root ball is buried. For additional information on establishing trees in the landscape, consult "Soil Preparation and Planting Procedures for Ornamental Trees and Shrubs," Extension Bulletin 932.

At this time, corrective pruning should be done and the tree can be staked. Dead or damaged limbs should be removed, as should crossing/conflicting branches. Start early in developing a good branching structure. At planting, decide which branches contribute to this and which do not. Remove undesired branches. On flowering trees, avoid pruning flower buds in order to maximize their show. Dogwood, for example, blooms in early spring and pruning should be done in late spring after blooming. Crapemyrtle, which blooms in summer, should be pruned in late winter or early spring before the flower buds form on the current season's growth.

Staking is used to protect or anchor trees from strong winds. The larger the crown, the greater the necessity to stake. Although there are numerous methods to use, three things should be considered in relationship to staking. First, staking is a temporary practice that should be discontinued after the root system is sufficient for support. One to two years should be sufficient. Second, research shows that the top portion of the stem should be free to move. This movement allows the tree to produce stem strength

that will not be found in trees with immobile stems. This will mean the point of support in staking should be low, just high enough to hold the truck upright and probably one-third to one-half up from the base of the trunk. Third, the staking procedure should be done so that no damage from rubbing or girdling is incurred and that all wire and hardware is removed when the tree is established. This will prevent possible girdling in the years to come.

An important and final step in the planting procedure is the watering-in. This should be done regardless of the season or weather. Water at least twice to allow the water to soak in deeply, more if soil is extremely porous. This watering helps eliminate air pockets and helps to consolidate the root ball with the surrounding soil.

Maintenance

Long-term maintenance requirements vary tremendously from tree to tree. Based on the results of a soil sample analysis, an annual fertilizer program should be set up for all trees. (The soil sample can be analyzed free of charge through the county agent's office.) Watering should be done at least during the first two seasons after transplanting. During the summer, trees should be watered from once a week to twice a month, less often during wet or cool seasons and only rarely during winter. Evergreen trees will require more moisture in the winter than will deciduous ones. Summer watering *may be necessary* on established trees during drought.

Pruning should be done annually to correct damage or injury. In the case of trees that develop weak branch angles, pruning should be done while young in order to develop a good branch structure.

Trees selected for screening and evergreen specimen trees that have a pyramidal or columnar form should be pruned with care. Do not remove their lower limbs. Many homeowners remove these lower limbs when the trees are young for easier maintenance (e.g., mowing grass), but this can cause greater maintenance problems later and adversely affect the appearance of the tree.

Insect and disease control is important. Correct diagnosis is the first step. Identification and control recommendations can be facilitated through the county agent's office. Certain pests are unacceptable and should be treated. Other infestations, such as Septoria leaf spot on dogwood, are almost inevitable but will not kill the tree. When using pesticides, select the proper chemical intended for the specific pest. Read the label carefully and apply thoroughly with care.

Guide to Tree Descriptions

Trees in this publication are divided into three sections: Screening and Specimen Trees, Flowering Trees and Deciduous Shade Trees.

The trees are in alphabetical order by botanical name, with the common name displayed first. This arrangement is done for simplicity in the grouping of all the oaks, all of the maples and others.

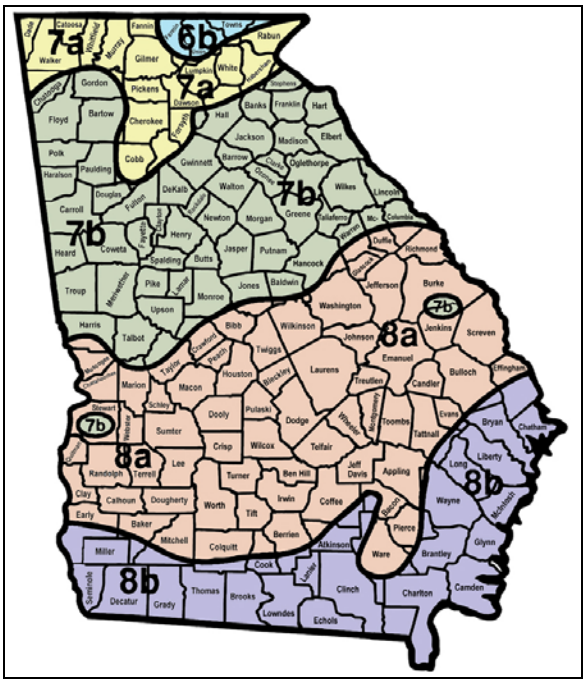
Information for each tree includes a *brief description*, *height/spread range*, *features/limitations*, *culture* and *recommended cultivars*. The main photograph shows the overall effect the tree will have in the landscape while the closeup photograph is to aid in identification or to show an outstanding feature.

Appendices II and III are indexes for the location of the trees in the text and cross referenced by name.

The *height/spread* information will be a valuable design consideration. Height and spread are approximations of the ultimate size in a landscape situation. In their native habitats, they will generally grow much larger.

The given *range* of the tree tells what portions of the state are suitable for its growth. Those listed as being native to the Southeastern or Eastern United States are most likely Georgia natives. Hybrid trees will not have geographical origin listed, nor will diverse species such as the crabapple. Refer to Figure 3.

Figure 3
Plant Hardiness Zones



The strong and weak points of the species are listed under *features* and *limitations*. It points out such considerations as bloom color and time, foliage colors, adaptability and uses. Bloom times are given for middle Georgia. They will be approximately two weeks later in North Georgia, two weeks earlier in South Georgia. Limitations include insect and disease problems, undesirable characteristics and maintenance considerations. The listing under *culture* expands upon the adaptability and cultural requirements of the tree.

In many cases, it is more desirable to select a cultivar rather than the species. This is given in the *recommended cultivars and other species* listing. Plants are grouped into families, such as Beech (Fagaceae family). The next group delineation within the family is the genus. Oak (Quercus), Beech (Fagus) and Chestnut (Castanea) are all genera (plural for genus) within this family. The species or specific name follows the genus and tells us which tree, specifically, we are discussing; for example, white oak (Quercus alba), northern red oak (Quercus rubra) or live oak (Quercus virginiana). A variety of a species varies from it in some small respect such as bloom color, habit or foliage. It is these cultivated varieties or *cultivars* that give us so much flexibility in landscaping. Cultivars are delineated with single quotes ('Bloodgood'). A similar species may also be discussed in this section. For example, American smoketree (Cotinus obovatus) is discussed under smoketree (Cotinus coggygria) in this section. It differs in height and blooming habit but has a distinctly better fall color. The genera, Cotinus in this case, would be abbreviated to C., C. obovatus.

Landscape Uses

Screening and Specimen Trees

The word *screening* sounds very negative to some people, but trees generally used for screening can have some very positive effects on a landscape setting because of their attractiveness. However more often screening trees are used because of their importance to the overall design. Usually the most important considerations are: hardiness; density; compactness; evergreen foliage; retention of lower limbs; and foliage texture and color that blends well with other plant material.

Screening trees are often used to block out undesirable views, but they also can be used to frame or accentuate a particular view. Trees in this category are often used to enclose an area for privacy in a backyard or to serve as a windbreak. Where space permits, trees are particularly good for these purposes, especially as windbreaks. Georgians can enjoy the outdoors almost every month of the year. A poorly designed fence or wall can actually intensify the effects of the cold, winter wind or the strong gusts typical of March. This is because the winds tend to bound over solid objects, resulting in even more turbulence on the other side. Plant material allows the wind to be filtered and can reduce its intensity up to ten times the height of the plant screen.

Specimen trees, as the name denotes, are used as focal points or accents. Many trees identified in this publication as suitable for use in screening, and almost all flowering trees, make very satisfactory specimens. Specimen trees can draw attention to and soften architectural features or serve as focal points themselves. Size, shape, foliage or flower color, fruiting habit and even winter silhouette may be reason for considering a particular tree.

Flowering Trees

The more popular flowering trees are generally those noted for their eye-catching display of color or unusual blooms. Those that do well in this state offer a wide range in color and season of display. Refer to Appendix I for information on the sequence of bloom of the trees discussed in this section.

Remember to be careful with color. Be sure that color schemes are coordinated. This includes structures in the immediate area as well as other plant material that may be in flower. Two factors should be remembered: when additional color is desired and low maintenance is important, a cluster of flowering trees will offer more color than a comparable number of shrubs because of their ultimate size. Adaptability to location (degree or sun or shade) and hardiness should be given as much consideration as floral effect.

The trees in this group have a number of very important design functions. Their use as an accent or focal point is obvious. Not as common, but equally beneficial, landscape applications include: the use of flowering trees to break up the strong horizontal lines typically seen on many one-story buildings (including residences) and to replace taller shrubs on long, low-silhouette houses, especially those with low windows. A planting plan composed of trees from this group, in conjunction with beds of ground cover, can create an interesting, attractive design that will remain in scale with the building longer without requiring heavy pruning. Of course, the trees will need to be planted far enough away from the building to allow for growth.

Deciduous Shade Trees

Shade trees can dramatically influence the environment around a structure. A large shade tree on the southwestern or southern side of a residence has the cooling potential comparable to a 30 percent increase in insulation. The temperature under a shade tree can be 10–15° cooler than on an unshaded surface. In addition, shade trees transpire enormous amounts of water. A large tree can give off as much as 100 gallons of water in the course of a day. The additional moisture in the air can have a definite cooling effect if there is a breeze (any air movement). These are further arguments for planting any necessary shade trees. These factors mean that a large shade tree can dramatically alter its immediate surroundings.

It is also important that the ultimate size of a tree be taken into account when deciding on a planting site. Large shade trees are those trees that will exceed 40 feet in height. Small shade trees, 40 feet or less, function just as large ones do but on a much smaller scale. Accordingly, use them in areas where there is less room for the tree to grow. Smaller-scaled specimen or flowering trees may be used as small shade trees where space is extremely limited or additional shading is desired on a one-story wall.

Screening and Specimen Trees

Japanese Maple **Acer palmatum**

General description: Horizontal branching deciduous tree. Form varies. Fine textured. Almost shrublike. Slow to medium growth rate.
Height/spread: 15–20'/10–15'.
Range: I, II, III, IV. Native to Japan and Korea.
Features and limitations: Seedlings variable, select cultivars for outstanding foliage colors and textures. Foliage colors range from green to red. Most have outstanding fall color, flame-orange to scarlet. Use as a small specimen tree.
Culture: Best in good soils, protected from full sun and drying winds. Needs adequate moisture throughout the growing season. Place in partial shade or in full sun if protected from wind.
Recommended cultivars and other species: 'Bloodgood' – brilliant maroon-red color spring through fall. Best of purple-leaf types. 'Burgundy Lace' – deeply lobed leaves, lacy appearance. Purplish-maroon in spring, fades to purplish-green. 'Dissectum' – (thread-leaf maple) deeply lobed finely cut leaves, very fine texture. Green leaves turning red-orange in fall. 'Dissectum Atropurpureum' – purple-red spring color that fades to purple-green in summer. 'Oshio-Beni' – finely serrated leaves, emerging red in spring fading to purple-green in summer.

Deodar Cedar ***Cedrus deodara***

General description: Pyramidal evergreen conifer. Fine textured with somewhat pendulous branches. Medium growth rate.
Height/spread: 30–50'/20–30'.
Range: I, II, III, IV. Native to Himalayas.
Features and limitations: Striking form with attractive foliage. At maturity, cones are borne upright on ends of branches, somewhat striking. Makes an impressive specimen tree and is useful for screening.
Culture: Prefers well-drained soil with some humus content. Grows well in most situations except wet sites. Place in full sun.
Recommended cultivars and other species: 'Fastigiata' – columnar. 'Pendula' – pendulous branches.

Smoketree ***Cotinus coggygria***

General description: Small, open to irregular shaped deciduous tree. Medium textured. Moderate to rapid growth rate.
Height/spread: 12–18'/10–12'.
Range: I, II, III, IV. Native to Southern Europe and Asia.
Features and limitations: Flowers in early summer, usually mid-June. Developing fruit clusters on female tree give a "smoke" appearance. Foliage is green to purplish; fall color is red-orange. Place in full sun. Best in North Georgia. Specimen tree.
Culture: Adaptable to most soils and sites. Very drought resistant. Avoid wet areas. Usually short lived.
Recommended cultivars and other species:
'Norcutt's Variety' – deep purple-red leaves. 'Nordine Red' – deep purple-red leaves all season. 'Purpureus' – leaves green, plumes are shades of purple. 'Royal Purple' – deep purple-red leaves. 'Velvet Cloak' – deep purple-red leaves. C. obovatus – (American smoketree) 30' tall. Does not have showy flowers but fall color is a brilliant scarlet to orange.

Cryptomeria ***Cryptomeria japonica***

General description: Pyramidal evergreen conifer. Fine textured. Fast growth rate.
Height/spread: 50–60'/20–30'.
Range: I, II, III, IV. Native to Japan.
Features and limitations: Symmetrical almost conical shape with needle-like foliage and reddish, peeling bark. Can be used as a specimen tree or for screening purposes.
Culture: Prefers moist soils, only moderately adaptable to dry sites. Place in full sun to partial shade.
Recommended cultivars and other species:
'Elegans' – compact form, 25' maximum. 'Globosa Nana' – rounded mounded. 3–4'. Dark green needles. 'Lobii' – likes species, rich green slightly smaller. 'Lobii Compacta' – smaller than above. Smaller foliage.

Leyland Cypress ***Cupressocyparis x leylandii***

General description: Pyramidal evergreen conifer. Fine textured. Very fast growth rate. Intergeneric hybrid.
Height/spread: 50–60'/20–30'.
Range: I, II, III, IV.
Features and limitations: Very fast growing, up to 3' per year. Fine, feathery foliage. Excellent for use as a screen or as a background plant.
Culture: Transplants readily from containers. Adaptable to extremes of soil conditions, acid or alkaline. Tolerates salt spray. Place in full sun to partial shade.
Recommended cultivars and other species: 'Castlewellan' – yellow foliage. 'Greenspire' – narrow, columnar form. 'Leighton Green' – heat resistant. 'Naylor's Blue' – grayish-green foliage, columnar. 'Silverdust' – bluish-green foliage, with white variegations. Wide spreading.

Loquat ***Eriobotrya japonica***

General description: Broadleaf evergreen tree with rounded or irregular shape. Coarse textured. Moderate growth rate.
Height/spread: 10–20'/10–15'.
Range: II, III, IV. Native to China and Japan.
Features and limitations: Fragrant white flowers in early fall, moderately showy. Makes a nice specimen tree. In mild winters, an edible fruit may develop. Fireblight can be a problem. Loquats may be damaged in colder than normal winters. Marginally hard in zone II.
Culture: Best on good sites with deep well-drained soils. Somewhat drought tolerant. Adaptable to a range of soils. Disease problems will be less severe with good air flow. Place in full sun to partial shade.
Recommended cultivars and other species: 'Golden Nugget' – large, pear-shaped yellow fruit.

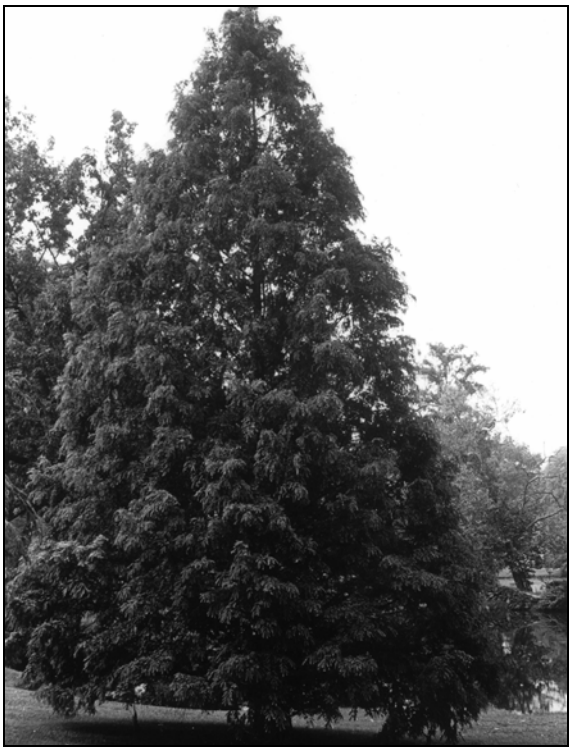
American Holly ***Ilex opaca***

General description: Pyramidal broadleaf evergreen trees with spiny leaves. Coarse textured. Best to select cultivars and hybrids. Slow to moderate growth rate.
Height/spread: Varies with cultivar. 20–50'/15–30'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Select cultivars for heavy berry production. Male and female plants required for berry production; but this is generally not a problem because of existing native or cultivated male plants. Makes a nice specimen tree. Also useful for screening. Leaf spot can be a problem.
Culture: Native to moist areas. Does quite well on most sites. Avoid over-fertilization. Transplants fairly readily. Place in full or partial shade.
Recommended cultivars and other species:
'Croonenburg' – compact, dark green, heavy fruit set. I. x attenuata 'East Palatka' – generally one terminal spine per leaf. Upright, pyramidal. Hybrid. I. x attenuata 'Foster's #2' – small, very dark green leaves, attractive pyramidal form. Heavy fruit set. Hybrid. I. x attenuata 'Savannah' – compact, full, medium green leaves. Heavy fruit set. Hybrid.

Southern Magnolia ***Magnolia grandifloria***

General description: Large upright to pyramidal broadleaf evergreen tree. Coarse textured. Slow to moderate growth rate.
Height/spread: 60–80'/40–50'.
Range: I, II, III, IV. Native to Southeastern United States.
Features and limitations: Dark glossy green foliage. Large white fragrant blooms late spring to mid-summer. Fruit is unusual, pineapple-like texture. Makes a nice specimen tree or for use as a screening tree.
Culture: Native to rich moist sites in acid soils. Will tolerate all but the worst of sites. On harsh sites performance will be poor. Moderately hard to transplant. Place in sun to partial shade.
Recommended cultivars and other species:
'Bracken's Brown Beauty' – patented cultivar with dark green leaves and brown felty backs. 'Claudia Wannamaker' – early bloomer, brown backed. 'Samuel Sommer' – rapid growth rate, upright, large flower. 'St. Mary' – deep dark green leaves, bronze on back. Flowers early.

Dawn Redwood ***Metasequoia glyptostroboides***

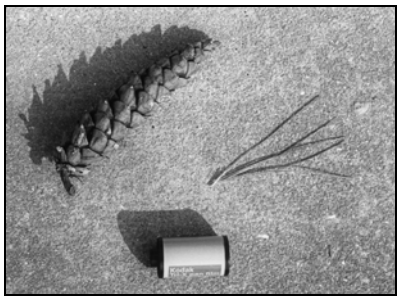


General description: Upright to pyramidal deciduous conifer. Fine textured. Fast growth rate. Resembles bald cypress.
Height/spread: 80–100'/30–40'.
Range: I, II, III, IV. Native to China.
Features and limitations: Form is attractive and the history is interesting since it has been around for 50 million years. May be hard to locate. Specimen tree. Good fall color.
Culture: Thought to be extinct until discovered growing in China in 1945. Grows best in good soils with adequate moisture. For best appearance, do not prune lower branches. Can grow up to 3' a year. Place in full sun.

Sourwood ***Oxydendrum arboreum***

General description: Upright deciduous tree. Medium to coarse textured. Moderate growth rate.
Height/spread: 30–40'/15–20'.
Range: I, II. Native to Eastern United States.
Features and limitations: Showy clusters of small, white bell-like flowers in late June. Good source for honey. Excellent red fall color. The dried fruit capsule is unusual. Bark rough, checkered. A beautiful native tree. Specimen tree.
Culture: Not suited for dry soils or as a street tree. Prefers full sun, good soils and adequate moisture. Difficult to transplant.

White Pine ***Pinus strobus***



General description: Pyramidal evergreen conifer. Fine textured and soft foliage. Medium growth rate.
Height/spread: 80–100'/25–40'.
Range: I, II. Native to Eastern United States.
Features and limitations: Quite attractive in form and texture. Makes an outstanding specimen tree or for screen purposes.
Culture: Use in North Georgia only. Although large specimens may be seen throughout the state, sudden death of large trees is not uncommon in South Georgia. Otherwise adapts to a wide variety of sites. Moderately drought tolerant. Place in full sun to partial shade.
Recommended cultivars and other species:
'Glauca' – bluish foliage. 'Pendula' – weeping. 'Prostrata' – unusual spreading form. 'Fastigiata' – upright.

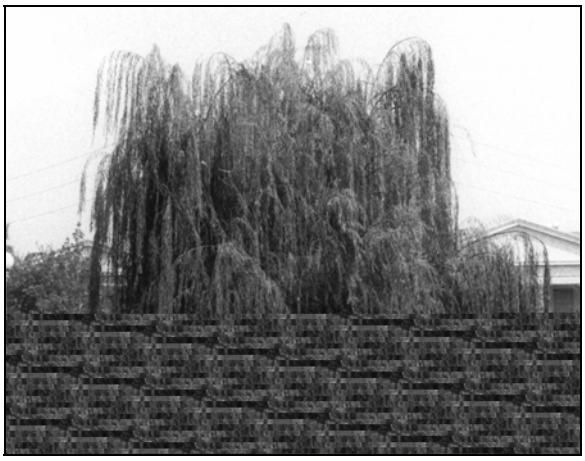
Virginia Pine ***Pinus virginiana***

General description: Irregular pyramidal evergreen conifer. Medium textured. Slow to moderate growth rate. Compact with horizontal branching habit.
Height/spread: 20–45'/15–20'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Adaptability is best feature. Tends to hang onto cones for long periods and this is somewhat distracting. Use as a specimen conifer or for screening purposes. Often grown for sale as a Christmas tree.
Culture: Native to dry stony locations. Will tolerate most sites as long as they are well-drained. Tough and tolerant. Responds well to proper fertilization. Place in full sun to partial shade.

Live Oak ***Quercus virginiana***

General description: Broadleaf evergreen tree with spreading to rounded-crown. Medium textured. Slower to moderate growth rate.
Height/spread: 40–80'/60–100'.
Range: II, III, IV. Native to Southeastern United States.
Features and limitations: Low and broad spreading form is attractive. Spectacular old trees exist. Virtually pest free, although Spanish moss can cover it in the lower South. The deciduous oaks make better shade trees because they generally lose their leaves in winter allowing sunlight to come through. Specimen.
Culture: Prefers moist sandy soils but tolerates dryer sites and heavy soils. Place in full sun.

Weeping Willow ***Salix babylonica***



General description: Deciduous tree with weeping branches. Fast growth rate.
Height/spread: 30–40'/20–30'.
Range: I, II, III, IV. Native to China.
Features and limitations: Very attractive near water. Somewhat short-lived. Makes an excellent specimen tree.
Culture: Grows well in wet to moist soils. Very susceptible to drought. Shallow root system can clog sewers. Proper pruning is essential to preserve the form. Place in full sun.
Recommended cultivars and other species:
S. matsudana 'Tortuosa' – (corkscrew willow) contorted branches. Attractive in the winter landscape.

Purple-leaf Plum ***Prunus cerasifera***

General description: Upright to vase-shaped deciduous flowering tree. Medium textured. Medium growth rate.
Height/spread: 20–30'/10–15'.
Range: I, II, III. Native to Western Asia.
Features and limitations: Pink to pinkish-white blooms in early spring, mid to late March. Purplish foliage, varying with cultivar. Small, red edible fruit. Peach twig borer can be a problem. May be short-lived. Select named varieties.
Culture: Adaptable to most sites except wet areas. Avoid compacted soils in full sun. Pruning may be necessary for best branching structure.
Recommended cultivars and other species: 'Atropurpurea' – large pink flowers, more intense foliage color. 'Newport' – blush-pink flowers, purple foliage. 'Nigra' – very deep purple foliage. Single, pink flowers. 'Thundercloud' – very deep purple foliage. Single, purplish-white flowers. Upright growth. 'Vesuvius' – large, deep purple leaves. Rarely flowers.

Double Flowered Peach ***Prunus persica 'Plena'***

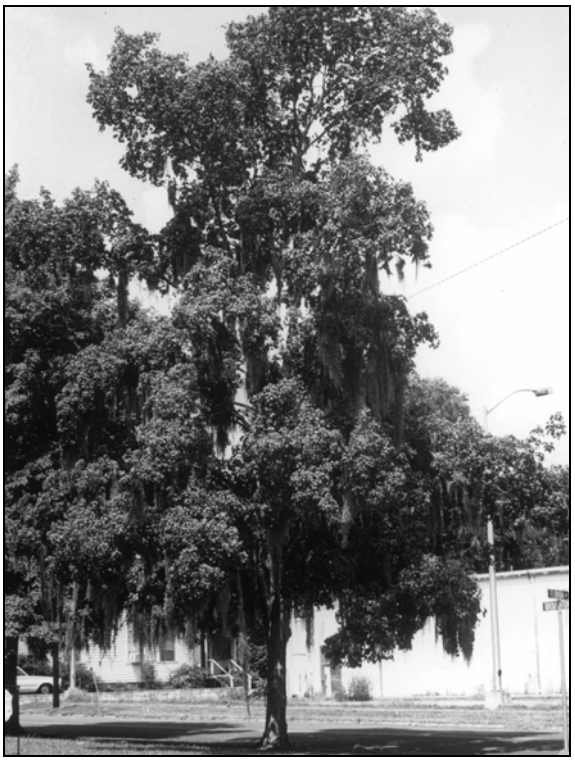
General description: Deciduous flowering tree with spreading form. Medium textured. Medium to fast growth rate.
Height/spread: 10–15'/8–12'.
Range: I, II, III, IV. Native to China.
Features and limitations: Red to white blooms in early spring, generally late March to mid-April. Use is severely restricted by insect and disease problems. Usually short-lived.
Culture: Does best on good sites with adequate moisture. Place in full sun.
Recommended cultivars and other species: Several cultivars available, usually listed by color.

Callery Pear ***Pyrus calleryana***

General description: Rounded to oval deciduous flowering tree. Medium to coarse textured. Medium to fast growth rate.
Height/spread: 30–50'/25–35'.
Range: I, II, III, IV. Native to China.
Features and limitations: Spectacular white blooms in early spring, generally mid-March. Leaves are green long into fall then turn a good red-yellow to red-orange. Fruit is small (¼–½") and is not a maintenance problem. All cultivars listed are thornless except Autumn Blaze.
Culture: Tolerates a wide range of soils. Has shown wide adaptability as a street tree. Virtually pest free. Place in full sun.
Recommended cultivars and other species: 'Aristocrat' – more ovate than oval. 'Autumn Blaze' – consistent red-purplish fall color. 'Bradford' – thornless, upright oval form. Branching structure poor, needs reshaping. 'Capitol' – narrow, lombardy poplar-like. Better branch structure. 'Chanticleer' – pyramidal, yellow to red-purple fall color. 'White House' – very upright, like 'Chanticleer'. Better branch structure.

Deciduous Shade Trees

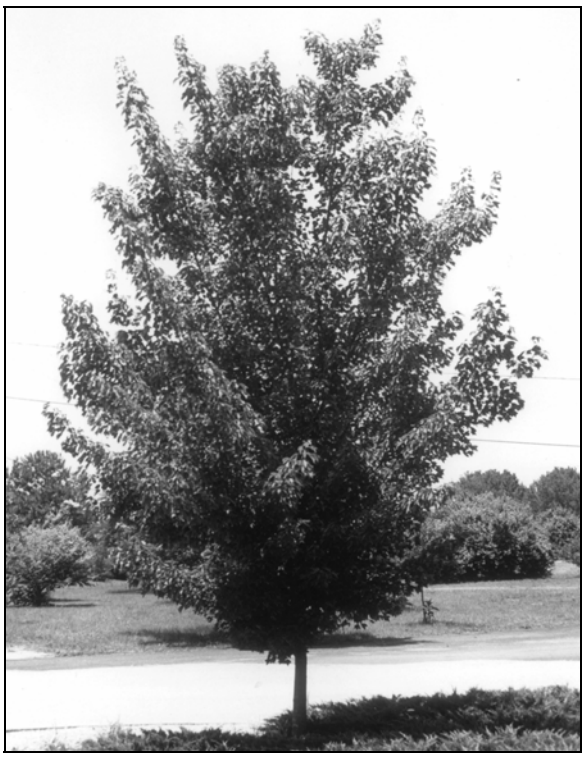
Florida Maple ***Acer barbatum***



General description: Round-headed deciduous tree. Medium textured. Medium to fast growth rate. Provides dense shade.
Height/spread: 40–50'/25–35'.
Range: II, III, IV. Native to Southeastern United States.
Features and limitations: An excellent mature tree with sturdy branches and attractive form. Pest free. Brilliant red-orange fall color. Little known but should be used more. Makes a nice specimen tree.
Culture: Should grow well in almost any site from moist to dry. Also called southern sugar maple because of its great similarity to A. saccharum and should be substituted for it in the southern half of the state. Place in sun to partial shade.

Recommended cultivars and other species:
A. leucocderme (Chalk Maple) – whitish bark, good fall color. Also adapted to deep south.

Trident Maple ***Acer buergeranum***



General description: Horizontal branching deciduous tree. Medium textured. Medium growth rate.
Height/spread: 25–35'/15–20'.
Range: I, II, III, IV. Native to Japan.
Features and limitations: Attractive, adaptable tree with good form. Has unusual orange-brown exfoliating bark. Fall color can be good, variable ranging from yellow to red. Makes a nice specimen tree.
Culture: Adaptable to many sites. Transplants readily. Should be used much more. Place in full sun to partial shade. Very drought tolerant.

Red Maple ***Acer rubrum***

General description: Round-headed deciduous tree. Medium textured. Medium growth rate.
Height/spread: 40–50'/25–35'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Flowers and fruit are scarlet-red and occur early in the spring, usually in mid-February. They can be showy. Fall color is variable but can be a good red-orange.
Culture: Native to moist or wet areas. Only moderately adaptable to dry, poor soils and urban sites. Requires adequate moisture in drought periods. Sunscald can occur on hot dry sites. Place in full sun to partial shade.
Recommended cultivars and other species: 'Armstrong' – upright, fast grower, fall color poor. 'Columnare' – very upright growth habit. 'Red Sunset' – good form, consistent orange-red fall color.

Sugar Maple ***Acer saccharum***

General description: Oval to upright deciduous tree. Medium textured. Slow to moderate growth rate. Provides dense shade.
Height/spread: 60–80'/25–40'.
Range: I, II. Native to Eastern United States.
Features and limitations: Attractive form. Good fall color, red to red-orange. No serious pest. Makes a nice specimen tree.
Culture: Does well in northern half of state. Place in moist soils or provide supplemental water in dry periods. Mulch to keep soil temperature cool. Place in sun to partial shade.
Recommended cultivars and other species: 'Green Mountain' – dark green, leathery leaves. Heat tolerant. 'Newton Sentry' – upright. 'Sweet Shadow' – finely cut leaves. Apricot-orange fall color. 'Temple's Upright' – columnar growth habit.

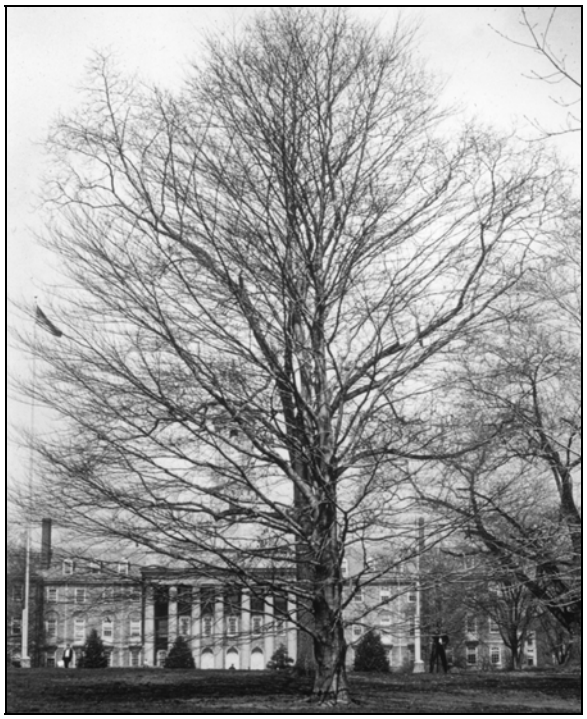
Serviceberry ***Amelanchier arborea***

General description: Oval-shaped deciduous tree. Medium texture. Medium growth rate.
Height/spread: 30–40'/15–20'.
Range: I, II. Native to Eastern United States.
Features and limitations: White flowers in early spring, generally early April. Purplish-red edible fruit. Yellow to red fall color. Fireblight and spider mites can be a problem. Should be used more in the northern half of the state.
Culture: For cooler parts of the state. Grows well on thin, rocky soil with sunny exposure. Place in full sun to partial shade.

River Birch ***Betula nigra***

General description: Oval shaped deciduous tree. Medium textured. Can be single or multiple-trunked trees. Fast growth rate.
Height/spread: 50–60'/40–50'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Best feature is peeling two-toned tan and copper bark, attractive especially in winter. Can be used as a specimen tree also.
Culture: Native to wet or moist soils. Tolerates most soil types but requires adequate moisture. Place in full sun to partial shade.
Recommended cultivars and other species:
'Heritage' – exfoliating bark whiter than the species, a whitish-salmon bark color. More vigorous.

American Beech ***Fagus grandifolia***

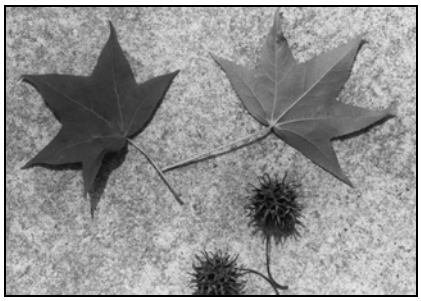


General description: Rounded to pyramidal deciduous tree. Coarse textured. Medium to fast growth rate. Provides dense shade.
Height/spread: 60–80'/35–45'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Excellent form, beautiful foliage. Leaves golden-bronze in fall and persist through winter. Nice as a specimen tree.
Culture: Prefers good sites, moist soils and provide plenty of room to develop. Not suited for harsh urban conditions. Best in color parts of Georgia. Dense, shallow, fibrous root system. Somewhat difficult to transplant unless root pruned. Difficult to grow other plants or grasses under established tree. Place in full sun or partial shade.

Ginkgo ***Ginkgo biloba***

General description: Deciduous tree with variable shape. Medium textured. Provides moderate shade. Very slow growth rate.
Height/spread: 50–70'/30–40'.
Range: I, II, III, IV. Native to China.
Features and limitations: Excellent yellow fall color with leaves shedding within a few days. Long-lived and pest free. Fruit from female trees has unpleasant odor and trees grown from seed van vary greatly in form. Grafted male trees are recommended. If at all possible, select cultivars.
Culture: Tolerant of most soil conditions, however, growth is most satisfactory in good soils with adequate moisture. Pest free. Place in full sun. Difficult to transplant.
Recommended cultivars and other species: 'Autumn Gold' – good color, male. 'Pendula' – weeping branches, male. 'Princeton Gold' – upright to spreading form, male. 'Princeton Sentry' – columnar, male.

Sweetgum ***Liquidambar styraciflua***

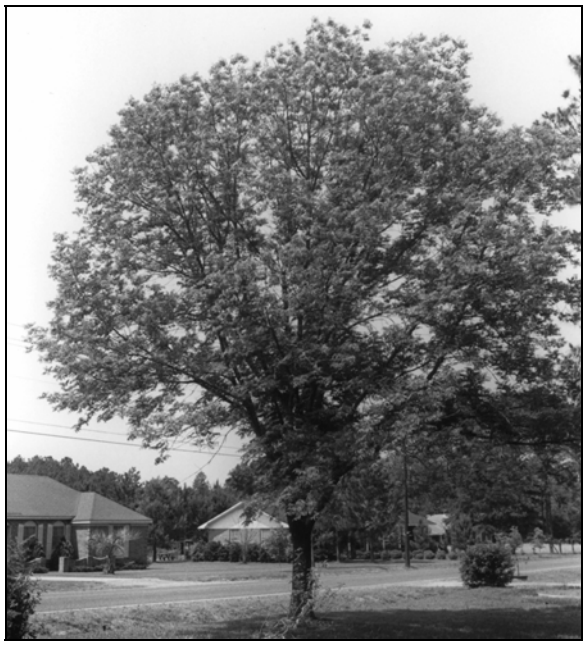


General description: Pyramidal deciduous tree. Coarse textured. Fast growth rate.
Height/spread: 80–100'/40–50'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Attractive form, good fall color although variable. Ranges from yellow to orange to purplish. Spiny globe-like fruit can be a maintenance problem. Insect damage can make the tree unsightly. Cultivars available but may be difficult to locate.
Culture: Native to moist areas. Select moist sites or irrigate in dry weather. Place in full sun. Difficult to transplant but does better if moved in early spring.
Recommended cultivars and other species:
'Burgundy' – claret (wine color) in fall. 'Festival' – slender, columnar. 'Gumball' – round, gumball shape. 'Moraine'- faster, upright oval. Brilliant red fall color. 'Obtusiloba' – fruitless, rounded leaf lobes.

Tulip Tree ***Liriodendron tulipifera***

General description: Large pyramidal to oval-shaped deciduous tree. Coarse textured. Provides dense shade. Fast growth rate.
Height/spread: 80–100'/30–40'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Attractive and unusual-shaped foliage. Pale orange tulip-like blooms in late spring, late April. Weak yellow fall color. Large leaves begin dropping early, which can be a maintenance problem.
Culture: Native to deep moist soils and stream banks. Does not do well on poor dry sites. Needs lots of room for development. Place in full sun. Transplants fairly easily.
Recommended cultivars and other species:
'Fastigiata' – pyramidal. 'Tortuosa' – leaves twisted.

Chinese Pistache ***Pistacia chinesnsis***

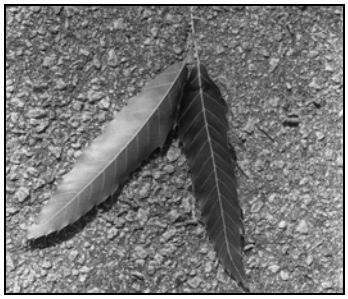


General description: Low, umbrella-shaped deciduous tree. Medium-textured foliage. Moderate growth rate.
Height/spread: 30–40'/20–30'.
Range: I, II, III, IV. Native to China.
Features and limitations: Tough, durable and adaptable. Excellent red-orange fall color, late in season. Pest free. Fruit set on female can be attractive; male and female flowers on separate trees. One of the best fall color trees for South Georgia.
Culture: Tolerates a variety of soils but prefers deep, well-drained soils. Shows great drought tolerance. Place in full sun. Shaping when young may be necessary for best crown development.

Sycamore ***Platanus occidentalis***

General description: Large, upright to pyramidal deciduous tree. Coarse textured. Wide spreading branches. Provides moderate shade. Fast growth rate.
Height/spread: 80–100'/40–50'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Provides good shade and is fast growing. Exfoliating bark is attractive. Wood somewhat brittle. Fallen limbs and large leaves can be a maintenance problem. Lacebugs and anthracnose disease are serious pests.
Culture: Native to rich, moist sites. Will grow in a variety of soils as long as adequate moisture is provided. Give lots of room for growth. Transplants easily. Place in full sun.
Recommended cultivars and other species:
P. orientalis – less susceptible to anthracnose than American sycamore. P. x acerifolia – cross between P. occidentalis and P. orientalis. Somewhat smaller and less susceptible to disease than American sycamore.

Sawtooth Oak ***Quercus acutissima***

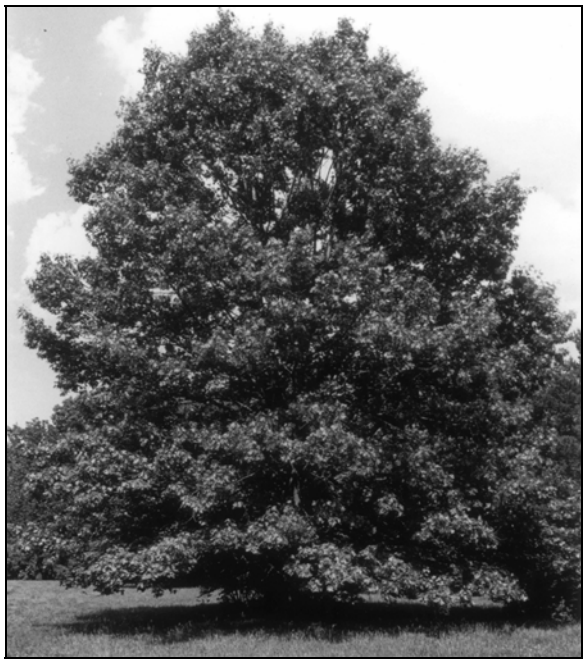


General description: Medium-textured deciduous shade tree, pyramidal when young, rounded with maturity. Moderate to fast growth rate.
Height/spread: 50–60'/30–60'.
Range: I, II, III, IV. Native to Korea, China, Japan.
Features and limitations: Dark green lustrous foliage. Provides good shade. Excellent yellow to golden-brown fall color, late November. Effective 3–4 weeks. One of the most rapid growing oaks. Retains leaves into winter. Acorns can be produced in abundance.
Culture: Adaptable to most sites, but prefers good soils with adequate moisture. Place in full sun. Young trees often need corrective pruning to ensure desired shape.

White Oak ***Quercus alba***

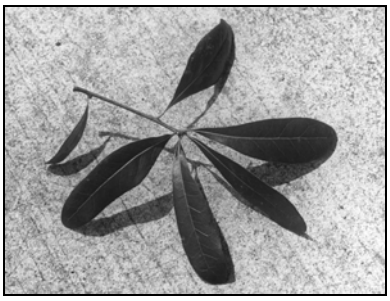
General description: Round-headed deciduous tree. Medium to coarse textured. Slow to moderate growth rate. Provides dense shade.
Height/spread: 60–100'/40–60'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Majestic, large, well-structured at maturity. Leaves blue-green turning wine-red in fall. Virtually pest free. Allow plenty of room for growth.
Culture: Found naturally in a variety of sites, moist areas to dry slopes. Does best in good soils rather than poor sites. Provide supplemental water in drought. Transplants poorly. Avoid disturbing root system. Place in full sun.

Scarlet Oak ***Quercus coccinea***



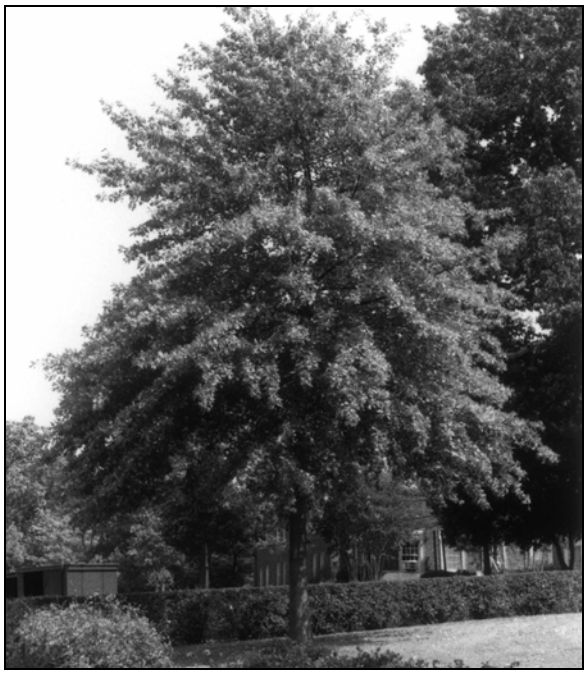
General description: Round-headed deciduous tree, pyramidal when young. Medium textured. Moderate growth rate.
Height/spread: 60–80'/30–40'.
Range: I, II, III. Native to Eastern United States.
Features and limitations: Most outstanding fall color of the oaks (scarlet red) in November. Attractive dark green foliage. Provides good shade.
Culture: Native to ridge tops with poor dry soils in northern half of the state. Difficult to transplant from the wild. Place in full sun.

Laurel Oak ***Quercus hemisphaerica***



General description: Large evergreen to semi-evergreen shade tree with broad, spreading crown. Medium textured. Moderate to rapid growth rate.
Height/spread: 60–80'/40–60'.
Range: II, III, IV. Native to Eastern United States.
Features and limitations: Good shade but grows fairly large. Retains dark-green leaves almost until spring.
Culture: Prefers good soils with adequate moisture but is somewhat tolerant of poor soils. Relatively pest free. Place in full sun. Often referred to as Darlington oak in the trade.
Recommended cultivars and other species:
Q. laurifolia (Swamp Laurel Oak) – mostly deciduous. Shorter lived.

Pin Oak ***Quercus palustris***

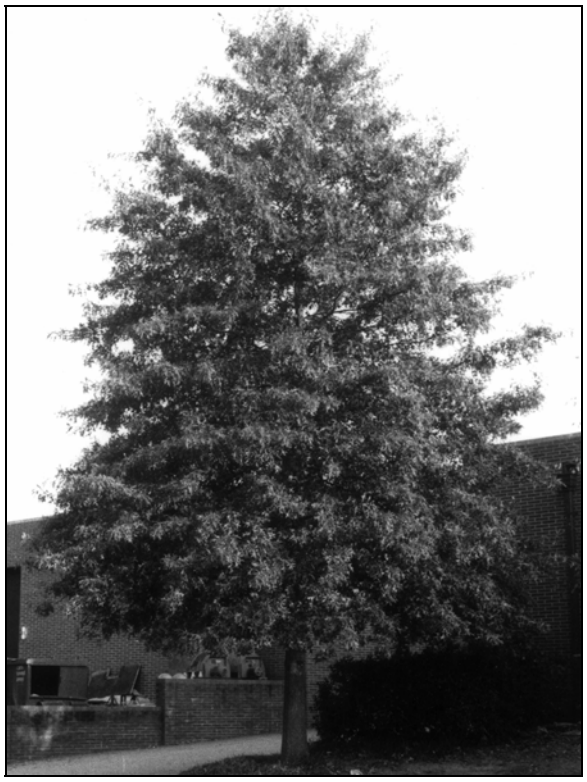


General description: Picturesque, medium-textured deciduous tree. Pyramidal when young, rounded with age. Moderate growth rate.
Height/spread: 50–60'/25–40'.
Range: I, II, III. Native to Eastern United States.
Features and limitations: Attractive, practically pest free providing good shade. Fall color is variable but can be a good red. Because of drooping lower limbs, do not plant near walks, drives or parking areas. Brown leaves persist well into winter.
Culture: Prefers deep, moist soils. Moderately adaptable to harsh sites and poor soils. Place in full sun. Responds to mulching, adequate moisture and good fertility. Transplants easily. Allow room to spread.
Recommended cultivars and other species: 'Crownright' – similar to 'Sovereign' but more narrow and upright. 'Sovereign' – lower limbs do not droop, more desirable as a street tree.

Willow Oak ***Quercus phellos***

General description: Fine-textured, pyramidal deciduous tree, develops rounded crown with age. Moderate growth rate.
Height/spread: 40–60'/30–60'.
Range: I, II, III, IV. Native to Eastern United States.
Features and limitations: Very attractive shade tree. Finer texture than most other oaks.
Culture: Prefers moist fertile soils. Moderately tolerant of adverse soil conditions and sites. Relatively pest free and fairly easy to transplant. Place in full sun.

Northern Red Oak ***Quercus rubra***



General description: Round-headed deciduous shade tree. Coarse textured. Moderate growth rate.
Height/spread: 80–120'/60–80'.
Range: I, II, III. Native to Eastern United States.
Features and limitations: Deep dark-green foliage, red fall color and attractive symmetrical form makes this a very desirable shade tree.
Culture: Prefers good soils and adequate moisture. Somewhat tolerant of poor sites. Pest free. Transplants fairly readily. Place in full sun.

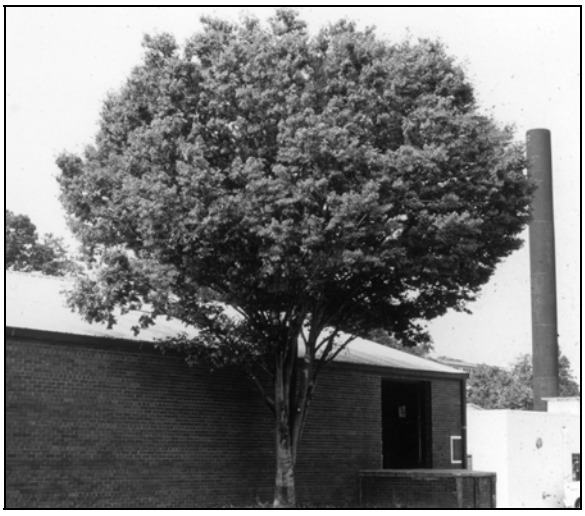
Chinese Tallow Tree ***Sapium sebiferum***

General description: Deciduous tree with irregular form. Medium to coarse textured. Rapid growth rate.
Height/spread: 30–40'/20–30'.
Range: III, IV. Native to China.
Features and limitations: Flowers are yellow catkins and are somewhat noticeable. Has green fruit capsules throughout the rest of the season that slip open in fall to reveal waxy white seed. Can be very showy. Fall color is variable, yellow-red to an excellent scarlet red. Good fall color for South Georgia.
Culture: Tolerates wide range of soils. Somewhat drought resistant. Fast grower but somewhat short-lived. Good fertility helps maintain vigor. Place in sun to partial shade. Pest free.

Lacebark Elm ***Ulmus parvifolia***

General description: Round-headed deciduous to semi-evergreen tree. Fine to medium textured. Fast growth rate.
Height/spread: 40–60'/30–40'.
Range: I, II, III, IV. Native to China.
Features and limitations: Fast-growing adaptable tree with exfoliating bark (hence the name lacebark). Not to be confused with the vastly inferior Siberian elm (Ulmus pumila). Good as a street tree if given room to grow. An excellent tree.
Culture: Tolerates a wide range of soils. Drought tolerant and relatively pest free. Adaptable to harsh, urban conditions. Resistant to Dutch elm disease and elm leaf beetle. Place in full sun.
Recommended cultivars and other species: 'Drake' – more upright inform, semi-evergreen in South Georgia. 'Sempervirens' – semi-evergreen in South Georgia. 'True Green' – semi-evergreen.

Japanese Zelkova ***Zelkova serrata***



General description: Broad to round-headed deciduous tree. Fine to medium textured. Fast growth rate.
Height/spread: 60–80'/30–40'.
Range: I, II, III, IV. Native to Japan.
Features and limitations: Similar in form and appearance and is related to the American elm but is resistant to Dutch elm disease and rarely bothered by elm leaf beetle. Leaves are dark green. Bark is mottled, scale-like and orange-salmon color on mature trees.
Culture: Tolerates most sites and does well in dry weather. Pruning may be necessary to develop good structure. Useful as a street tree. Place in full sun.
Recommended cultivars and other species: 'Parkview' – vase-shaped form. 'Village Green' – reddish-purple fall color.

Appendix I

Trees for Special Uses, Special Sites

Sequence of Bloom	Color(s)	Time of Year[1]
Red Maple	Scarlet Red	Mid, Late February
Star Magnolia*	White, Pinks	Late February
Saucer Magnolia*	White, Pinks, Purples	Late February, Early March
Purple-leaf Plum*	White, Pinks	Early March
Callery Pear	White	Early, Mid-March
Flowering Cherries*	White, Pinks, Rose	Early, Mid-March
Redbud*	White, Pinks, Lavender, Rose	Mid, Late March
Double Flowered Peach*	White, Pinks, Reds	Mid, Late March
Serviceberry	White	Late March, Early April
Flowering Crabapples*	White, Pinks, Reds	Late March, Early April
Flowering Dogwood*	White, Pinks, Rose	Late March, Early April
Chinese Dogwood*	White	Early April
Fringetree	White	Late April
Southern Magnolia	White	June
Goldenrain Tree	Yellow	June
Sourwood	White	June
Smoketree*	Pink, Purple	June
Chaste Tree	Blue-Purple, Lavender	July–August
Crapemyrtle*	White, Pinks, Lavender, Red	Late July, September–October

*Select cultivars for desired color; refer to tree descriptions.

[1]Two weeks later in North Georgia. Two weeks earlier in South Georgia.

Best Foliage Colors

Tree	Color(s)	Effective
American Beech	Golden Bronze	Fall
Bald Cypress	Russet-Orange	Fall
Callery Pear*	Red-Orange	Fall
Chinese Pistache	Red	Fall
Chinese Tallow Tree	Variable; Yellow-Red to Scarlet-Red	Fall
Crabapple*	Red, Red-Purple	Spring, Summer
Crapemyrtle	Red, Red-Orange	Fall
Dogwood	Red	Fall
Florida Maple	Red-Orange	Fall
Ginkgo*	Clear Yellow	Fall
Japanese Maple*	Red, Orange-Red, Red-Purple	Spring, Summer and/or Fall
Japanese Zelkova	Variable; Yellow, Reddish-Purple	Fall
Northern Red Oak	Russet-Red	Fall
Pin Oak	Russet-Red	Fall
Purple-leaf Plum*	Purplish	Spring, Summer
Red Maple	Yellow, Scarlet Red	Fall
Sawtooth Oak	Golden Brown	Fall
Scarlet Oak	Scarlet Red	Fall
Serviceberry	Yellow-Red	Fall
Smoketree*	Purple-Green, Purple-Red	Spring, Summer and/or Fall
Sourwood	Red	Fall
Sugar Maple	Yellow, Red, Red-Orange	Fall
Sweetgum*	Variable; Yellow, Orange, Purple	Fall
Trident Maple	Variable; Orange-Red	Fall
White Oak	Red, Purplish-Red	Fall

*Color may vary depending on cultivar selection; refer to text.

Trees With Other Attractive or Unusual Features

Tree	Feature
American Holly	Fruit
Chaste Tree	Foliage Shape
Chinese Dogwood	Fruit, Bark
Chinese Pistache	Fruit
Chinese Tallow Tree	Fruit
Crapemyrtle	Bark
Florida Maple	Bark
Flowering Dogwood	Fruit, Bark
Ginkgo	Foliage Shape
Goldenrain Tree	Fruit
Japanese Maple	Foliage Shape, Bark
Japanese Zelkova	Bark
Lacebark Elm	Bark
Red Maple	Fruit (Quite noticeable in early spring)
River Birch	Bark
Saucer Magnolia	Bark
Serviceberry (female trees)	Fruit, Bark
Sourwood	Fruit
Southern Magnolia	Fruit
Sycamore	Bark
Trident Maple	Bark
Tulip Tree	Fruit

Tree Tolerance

Trees More Tolerant of Dry, Harsh Areas	Trees More Tolerant of Wet Areas
Chaste Tree	Bald Cypress
Chinese Pistache	Red Maple
Japanese Zelkova	River Birch
Lacebark Elm	Southern Magnolia
Leyland Cypress	Sweetgum
Northern Red Oak	Sycamore
Sawtooth Oak	Tulip Tree
Scarlet Oak	Weeping Willow
Virginia Pine	Willow Oak

Appendix II

Botanical to Common Name

Botanical	Common	Page
Acer barbatum	Florida Maple	29
Acer buergeranum	Trident Maple	29
Acer palmatum	Japanese Maple	14
Acer rubrum	Red Maple	30
Acer saccharum	Sugar Maple	30
Amelanchier arborea	Serviceberry	31
Betula nigra	River Birch	31
Cedrus deodara	Deodar cedar	14
Cercis Canadensis	Redbud	22
Cercis chinensis	Chinese Redbud	22
Chionanthus retusus	Chinese Fringetree	22
Chionanthus virginicus	Fringetree	22
Cornus florida	Flowering Dogwood	23
Cornus kousa	Japanese Dogwood	23
Cotinus coggygria	Smoketree	15
Cotinus obovatus	American Smoketree	15
Cryptomeria japonica	Cryptomeria	15
Cupressocyparis x leylandi	Leyland Cypress	16
Eriobotrya japonica	Loquat	16
Fagus grandifolia	American Beech	32
Ginkgo biloba	Ginkgo	32
Ilex opaca	American Holly	17
Koelreuteria paniculata	Goldenrain Tree	24
Koelreuteria bipinnata	Chinese Flame Tree	24
Lagerstromia indica	Crapemyrtle	24
Liquidambar styraciflua	Sweetgum	33
Liriodendron tulipifera	Tulip Tree	33
Magnolia grandiflora	Southern Magnolia	17
Magnolia x soulangiana	Saucer Magnolia	25

Botanical	Common	Page
Magnolia stellata	Star Magnolia	25
Malus species	Flowering Crabapple	26
Metasequoia glyptostroboides	Dawn Redwood	18
Oxydendrum arboreum	Sourwood	18
Pinus strobes	White Pine	19
Pinus virginiana	Virginia Pine	19
Pistacia chinensis	Chinese Pistache	34
Platanus x acerifolia	London Planetree	34
Platanus occidentalis	Sycamore	34
Platanus orientalis	Oriental Planetree	34
Prunus species	Flowering Cherry	26
Prunus cerasifera	Purple-leaf Plum	27
Prunus persica	Double Flowered Peach	27
Pyrus calleryana	Callery Pear	28
Quercus acutissima	Sawtooth Oak	35
Quercus alba	White Oak	35
Quercus coccinea	Scarlet Oak	36
Quercus hemisphaerica	Laurel Oak	36
Quercus laurifolia	Swamp Laurel Oak	36
Quercus palustris	Pin Oak	37
Quercus phellos	Willow Oak	37
Quercus rubra	Northern Red Oak	38
Quercus virginiana	Live Oak	20
Salix babylonica	Weeping Willow	20
Salix matsudana Tortuosa	Corkscrew Willow	20
Sapium sebiferum	Chinese Tallow Tree	38
Taxodium distichum	Bald Cypress	21
Taxodium ascendens	Pond Cypress	21
Ulmus parvifolia	Lacebark Elm	39
Vitex agnus-castus	Chaste Tree	21
Zelkova serrata	Japanese Zelkova	39

Appendix III

Common to Botanical Name

Common	Botanical	Page
American Beech	Fagus grandifolia	32
American Holly	Ilex opaca	17
American Smoketree	Cotinus obovatus	15
Bald Cypress	Taxodium distichum	21
Callery Pear	Pyrus calleryana	28
Chaste Tree	Vitex agnus-castus	21
Chinese Dogwood	Cornus kousa	23
Chinese Flame Tree	Koelreuteria bipinnata	24
Chinese Fringetree	Chionanthus retusus	22
Chinese Pistache	Pistacia chinensis	34
Chinese Redbud	Cercis chinensis	22
Chinese Tallow Tree	Sapium sebiferum	38
Corkscrew Willow	Salix matsudana ‘Tortuosa’	20
Crapemyrtle	Lagerstromia indica	24
Cryptomeria	Cryptomeria japonica	15
Dawn Redwood	Metasequoia glyptostroboides	18
Deodar Cedar	Cedrus deodara	14
Double Flowered Peach	Prunus persica	27
Florida Maple	Acer barbatum	29
Flowering Cherries	Prunus species	26
Flowering Crabapples	Malus species	26
Flowering Dogwood	Cornus florida	23
Fringetree	Chionanthus virginicus	22
Ginkgo	Ginkgo biloba	32
Goldenrain Tree	Koelreuteria paniculata	24
Japanese Dogwood	Cornus kousa	23
Japanese Maple	Acer palmatum	14
Japanese Zelkova	Zelkova serrata	39
Lacebark Elm	Ulmus parvifolia	39

Common	Botanical	Page
Laurel Oak	Quercus hemisphaerica	36
Leyland Cypress	Cupressocyparis x leylandi	16
Live Oak	Quercus virginiana	20
London Planetree	Platanus x acerifolia	34
Loquat	Eriobotrya japonica	16
Northern Red Oak	Quercus rubra	38
Oriental Planetree	Platanus orientalis	34
Pin Oak	Quercus palustris	37
Pond Cypress	Taxodium ascendens	21
Purple-leaf Plum	Prunus cerasifera	27
Redbud	Cercis Canadensis	22
Red Maple	Acer rubrum	30
River Birch	Betula nigra	31
Saucer Magnolia	Magnolia x soulangiana	25
Sawtooth Oak	Quercus acutissima	35
Scarlet Oak	Quercus coccinea	36
Serviceberry	Amelanchier arborea	31
Smoketree	Cotinus coggygria	15
Sourwood	Oxydendrum arboreum	18
Southern Magnolia	Magnolia grandiflora	17
Star Magnolia	Magnolia stellata	25
Sugar Maple	Acer saccharum	30
Swamp Laurel Oak	Quercus laurifolia	36
Sweetgum	Liquidambar styraciflua	33
Sycamore	Platanus occidentalis	34
Trident Maple	Acer buergeranum	29
Tulip Tree	Liriodendron tulipifera	33
Virginia Pine	Pinus virginiana	19
Weeping Willow	Salix babylonica	20
White Oak	Quercus alba	35
White Pine	Pinus strobus	19
Willow Oak	Quercus phellos	37

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J. Scott Angle, Dean and Director

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