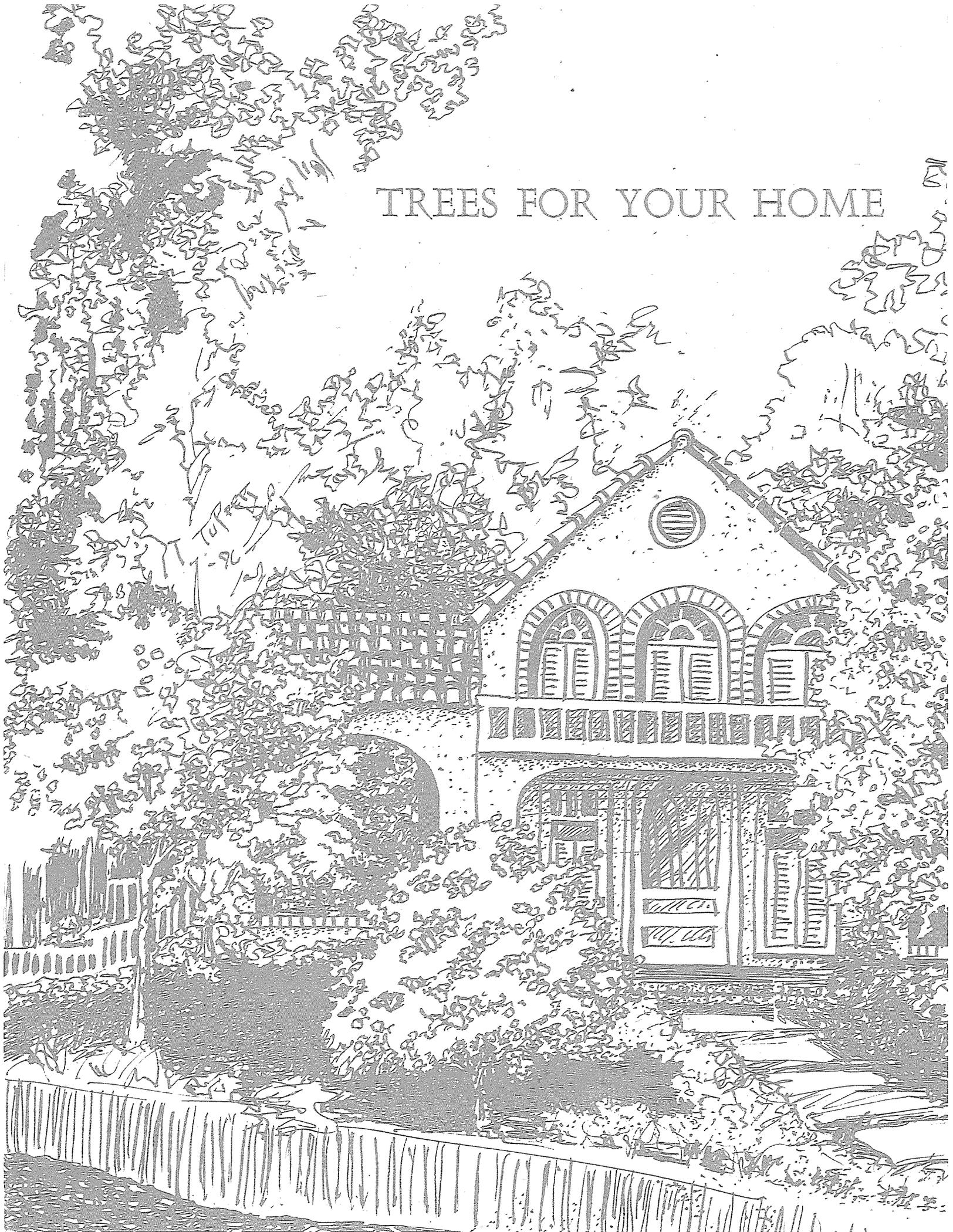


TREES FOR YOUR HOME



WHY PLANT TREES

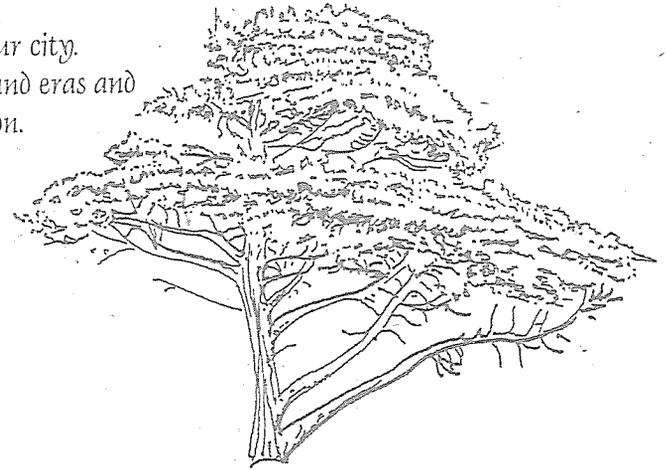
Trees create green spaces in communities. The right trees in the right places benefit you, your home and your community now and in the future. Using this guide will help citizens create community green spaces. It encourages both experts and amateurs to plant and grow trees correctly, and to maintain new and older plantings.

Trees growing in parks and commons, along streets and in the yards and gardens of neighborhoods provide a mosaic of green landscapes within a community. Trees provide a wealth of benefits that improve the quality of life in Middle Tennessee:

- Trees cool the air through evapotranspiration and provide shade that reduces radiation and reflection from hard city surfaces.
- Trees lower urban temperatures and so reduce the use of fossil fuels. Trees that shade your home can reduce electric bills by 15%. Shading an air conditioning unit can increase its efficiency by ten%.
- Tree foliage filters pollutants from the air and converts carbon dioxide to oxygen through photosynthesis.
- Trees reduce runoff and prevent soil erosion during heavy rainfall.
- Trees also absorb noise and provide an effective screen for unsightly areas.
- Trees increase economic stability and property values. On average, trees add between 5 and 7% to the value of a house lot.
- Trees provide wildlife habitat and food.
- Trees provide a place for children to play and adults to socialize.
- Studies have proven that trees help us relax and recover from illness. They give us a feeling of security and make us feel at home.
- Trees beautify and add natural character to our city.
- Trees connect us symbolically to past events and eras and serve as a living legacy for the next generation.

This guide provides information about:

- Site selection: where to plant
- Tree selection: what to plant
- Planting correctly
- Aftercare: long term maintenance
- Pruning guidelines
- Other resources available



In Tennessee we are blessed with a favorable climate suitable for a variety of trees. With many native and well-adapted trees available, design and selection becomes important. This guide describes small and large trees which are at home in Middle Tennessee. Presented here are the current recommendations for tree selection, planting and aftercare. This is a guide on how to plant — for detailed information refer to sources listed at the end of the guide. Take this guide with you as you select a site and the correct tree for it. Use it again when you plant and prune. We hope that this information can help you get the full benefit of trees without any unexpected problems. We provide scientific names to help make sure you will get the tree you want.

Let's help trees grow to be beautiful, healthy and safe.

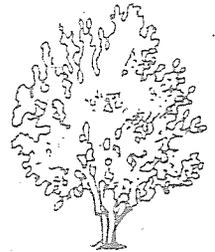
TREES FOR YOUR HOME



Sugar
Maple

These are suggested tree species for the Middle Tennessee area, but not every tree will be right for your yard. Plan before you plant and choose the right tree for the right place.

Serviceberry — *Amelanchier arborea* or *Amelanchier laevis* — A fine textured small-tree with profuse white narrow-petalled flowers in spring, followed in early summer by edible berries loved by birds. Fall color is often bright and attractive. Prefers moist, well drained, acid soil; will tolerate full sun or partial shade but does well in a variety of sites. (height-15 to 25' width-varies) ❖



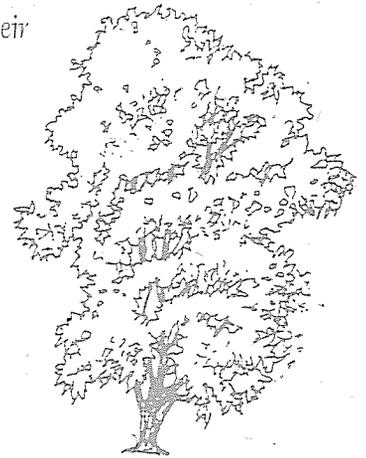
Serviceberry

Red Maple — *Acer rubrum* — A wonderful tree for yards and streets, the red maple is the official Nashville tree. This native Tennessee tree is medium to fast growing and accepts a wide range of soil ph and locations. It is easy to find in local nurseries and is an attractive tree year round. The most appealing quality of red maple trees has to be their red fall color and faster growth. (height-40 to 60', width-same or less) ❖



Eastern
Redbud

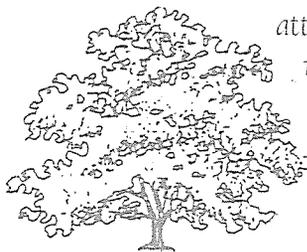
Eastern Redbud — *Cercis canadensis* and cultivars — A small tree with heart shaped leaves, the redbud grows everywhere across Tennessee. The attractive purple flowers are a harbinger of spring. Consider a multi-stemmed specimen if you have room. Eastern redbud is especially nice in a wooded setting. (height-20 to 30', width-25 to 35') ❖



Red
Maple

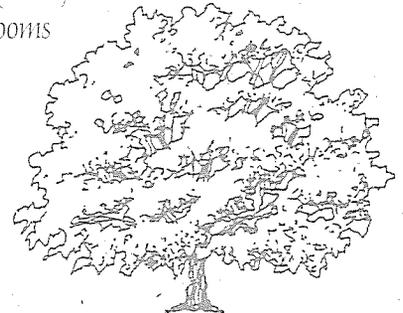
Sugar Maple — *Acer saccharum* and cultivars — A wonderful large shade tree with attractive yellow to orange fall color. Sugar maple tolerates shade and a variety of soil ph but not a restricted growing area. (height-60 to 75', width-2/3 height) ❖

Flowering Dogwood — *Cornus florida* — Dogwood is a small, spreading tree native to forest understories throughout Tennessee. The shiny red berries are a favorite of birds and animals. Prefers an acid well-drained soil in partial shade. Will suffer if planted in an open area without summer watering. An excellent four season tree with beautiful spring flowers, attractive summer and fall foliage and pleasing winter shape. Blooms range in color from white to pink to deep red. (height and width-20 to 40') ❖



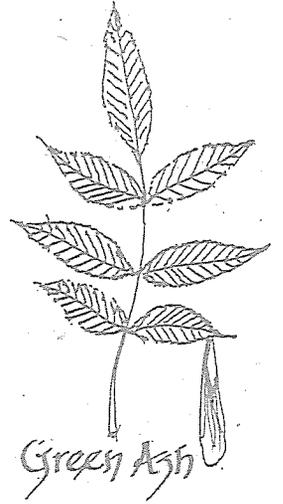
Flowering
Dogwood

Yellowwood — *Cladrastis kentukea* — An appealing, medium sized, spreading shade tree for smaller sites. It has beautiful white, fragrant panicles of flowers that bloom every two or three years. Prefers a well-drained site in full sun but tolerates a range of soil ph. A tree with very few disease problems. (height-30 to 50', width-40 to 55') ❖



Yellowwood

Green Ash — *Fraxinus pennsylvanica* (cultivars, 'Cimmaron', 'Patmore', 'Summit') — Green ash is a medium sized tree which prefers full sun but is otherwise adaptable to a wide variety of sites. (height-50 to 60', width 20 to 40') ❖



Green Ash

Kousa Dogwood — *Cornus kousa* and cultivars — A very handsome and recommended tree. A native of the orient, this is a dogwood with a slightly different look. It blooms two to three weeks after our native flowering dogwood with white bracts which are held above the horizontal branches after the leaves arrive. Kousa dogwood is a small tree which prefers acid well drained soil but is more drought tolerant than *Cornus florida*. (height and width-20 to 30')



Kousa Dogwood

Ginkgo — *Ginkgo biloba* (male) — Grown for shade, leaf texture and beautiful yellow fall color, the ginkgo is a large, wide spreading tree that is highly recommended. It prefers full sun but is quite adaptable otherwise. It is drought and heat tolerant and free of pests. The ginkgo has an attractive form which is impressive when mature. Since the fruit on female trees has a horrible odor you must always purchase male clone ginkgos. (height-50 to 80', width-30 to 80')



Ginkgo

Amur Maple



Amur Maple — *Acer ginnala* and cultivars — A small tree or large multi-stemmed shrub with a rounded shape. It is hardy and adaptable and may even be grown as a container plant. The amur maple works well in groups to provide a screen or to soften the corners or walls of large buildings. (height and width-15 to 25')

American Holly — *Ilex opaca* and cultivars — Leathery, evergreen leaves with sharp pointed edges and bright red berries distinguish the American holly. The largest of the native hollies, the American holly may reach a height of 50 feet. A slow growing tree which prefers well drained, acid soil in sun or partial shade. It will not tolerate a dry, windy exposed location. Check out some of the many cultivars some with yellow berries and different sizes and shapes. (height-15 to 30', width-18 to 40') ❖



American Holly

Red Buckeye — *Aesculus patia* — A small, wide spreading tree or large shrub with handsome compound palmate leaves. It is planted most often for its showy, red flowers that attract hummingbirds. The buckeye will grow in full sun to light shade and prefers moist, well drained organic soil. (height and width-10 to 20')

Red Buckeye



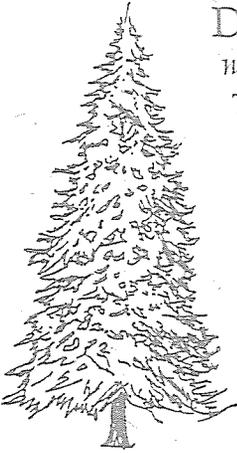
Eastern Redcedar — *Juniperus virginiana* — A medium sized, Tennessee native that often thrives in areas where other trees are not growing such as abandoned fields. It tolerates adverse conditions, poor rocky soils and a wide range of soil pH.

Eastern redcedar is a needle leaved evergreen with a dense pyramid shaped crown that is actually a species of juniper. Plant this tree for its evergreen color, hardiness and ornamental shape. It may also be used to provide a windbreak or hedge. It is susceptible to bagworms — pull them off when you see them. (height-40 to 50', width-8 to 20') ❖



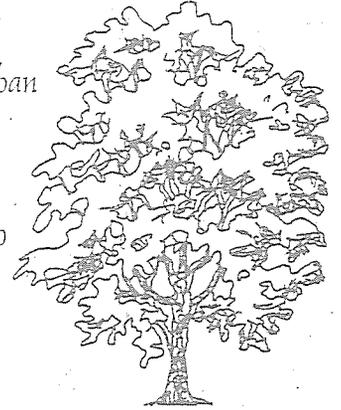
Eastern Red Cedar

Dawn Redwood — *Metasequoia glyptostroboides* — A deciduous, feathery needle leafed tree with a pyramidal shape. This is a deep rooted tree that prefers moist, slightly acid soil and full sun. The dawn redwood is a native of China and has only been grown in America for the last fifty years. (height-70 to 100', width-25 to 50')

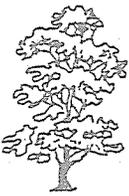


Dawn Redwood

London Planetree — *Platanus x acerifolia* — This is a fine urban tree for it will grow in almost any soil, in full sun or light shade and is pollution tolerant. London planetree is the result of a cross between our native Sycamore and the oriental planetree. This tree's greatest asset is its beautiful exfoliating bark which ranges in color from cream to olive to light brown. It is a tall, spreading tree so plan accordingly. (height-70 to 100', width-65 to 80')



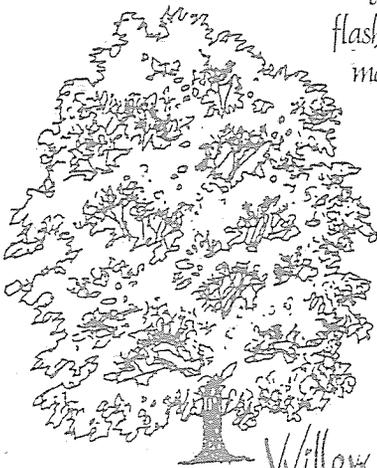
London Planetree



Littleleaf Linden — *Tilia cordata* and cultivars — A medium sized tree closely related to our American basswood but more tolerant, adaptable and ornamental. Lindens have an attractive heart shaped leaf and wonderfully fragrant small flowers. It is a large tree but several cultivars have been bred for smaller heights and forms. It does prefer full sun and a moist well drained site but is pollution and ph tolerant. (height-60 to 70', width-30 to 50')

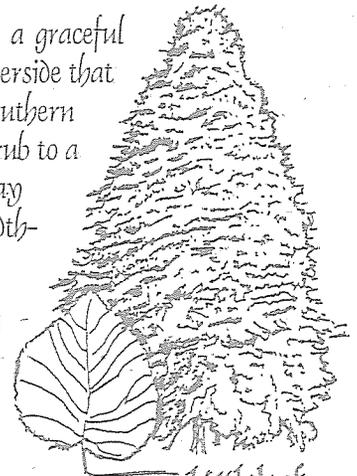
Sweetbay Magnolia

Sweetbay Magnolia — *Magnolia virginiana* — This is a graceful tree with attractive leaves and flowers. The leaves have a silvery underside that flashes when the wind blows and the flowers, though much smaller than Southern magnolia, have a wonderful fragrance. It ranges in size from a large shrub to a medium sized tree growing much larger in the deep south. The sweetbay must have acid soil but tolerates shade and a wet site. (height and width-20 to 40')



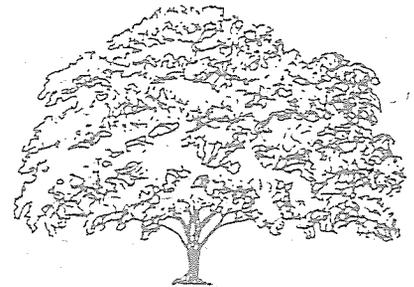
Willow Oak

Willow Oak — *Quercus phellos* — A large wide spreading tree with narrow lance-shaped leaves. Willow oak transplants more easily than other oaks and can adapt to harsh locations. An oak is a long-lived tree that may be enjoyed by several generations. (height-40 to 60', width-30 to 40') ❖

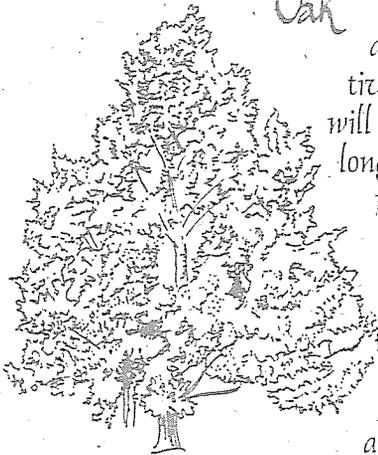


Littleleaf Linden

Yoshino Cherry — *Prunus x yedoensis* — A small tree planted for its pretty pink buds and white flowers that appear in early spring before the leaves. It also has an attractive spreading shape. It must have full sun, but once established will stand up to the heat of the south. Most cherries are not very long lived — around twenty five to thirty years. (height and width-25 to 30')

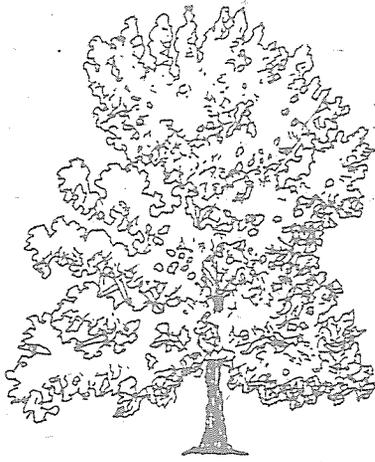


Yoshino Cherry



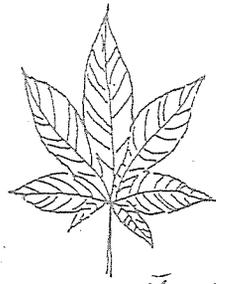
Sawtooth Oak

Sawtooth Oak — *Quercus acutissima* — This tree is an oriental native that grows faster but stays smaller than most of our native oaks. The sawtooth oak thrives in the heat of the south and is easily grown and adaptable. Sawtooth oak produces a heavy crop of acorns every few years and has a tendency to hold its dead leaves well into the winter. (height and width-35 to 45')



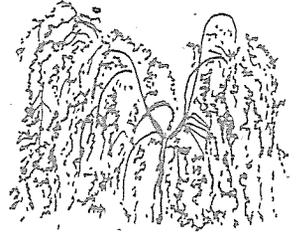
Sweetgum

Japanese maple — *Acer palmatum* and cultivars — A wonderful specimen or accent tree with a pretty form and attractive leaf texture, shape and color. A small tree but varies greatly in size. Needs light shade and moist, high organic matter, well drained soil. Water and mulch for our hot summers. (height-15 to 25', width-that or greater)



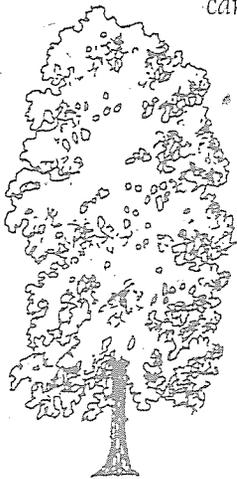
Japanese Maple

Sweetgum — *Liquidambar styraciflua* — An excellent lawn, park or street tree, the sweetgum can withstand compacted or wet soil conditions. It does best on a site with full sun where its roots have plenty of room to grow. The leaves turn a beautiful yellow or maroon red in the fall and the fruits hang dark brown on the tree through the winter. For those who don't want the fruit balls, there is a seedless form 'rotundiloba'. (height-60 to 75', width-35' to 45') ❖



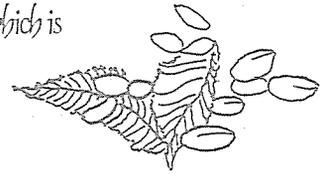
Weeping Higan Cherry

Cornelian cherry Dogwood — *Cornus mas* — A nice small tree or large shrub which is often multi-stemmed. Small yellow flowers appear in very early spring when they can provide a pretty spot of color. It is adaptable and durable but prefers a well drained location. Also look for Japanese Cornel Dogwood, *Cornus officinalis* which is similar and also recommended. (height-20 to 25', width-15 to 20') ❖



Yellow Poplar (Tulip Tree)

Weeping Higan Cherry — *Prunus subhirtella pendula* — A small tree, native to Japan with beautiful spring flowers and a graceful weeping shape. This is the most cold, heat and stress tolerant of cherries and also the longest lived. (height-20 to 40', width-15 to 30')



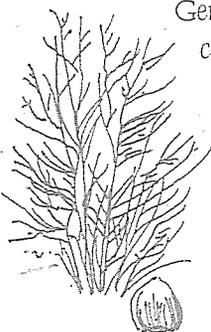
Cornelian Cherry Dogwood

Hawthorn — *Crataegus phaenopyrum* and *Crataegus viridis* — Grown for its bright red berries which persist through the winter. Hawthorn is native to Tennessee and is grown as a small tree or shrub. Beware of the large thorns — don't use it in a high traffic area. (height and width-20 to 35') ❖



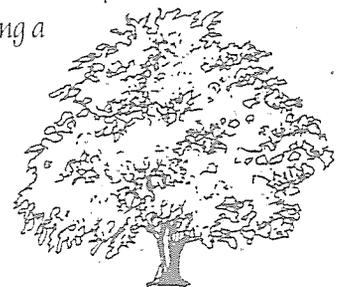
Southern Magnolia

Southern Magnolia — *Magnolia grandiflora* and cultivars — The queen of southern evergreens, southern magnolia is a large low branching tree with a pyramidal shape. It has large, leathery, dark green leaves and beautiful, fragrant flowers eight to twelve inches in diameter. Grow in full sun or partial shade and transplant in winter or early spring. It sometimes drops its leaves when transplanted but will generally grow more. There are many wonderful cultivars of this tree — 'Little Gem' is one of the smallest but blooms at a young age, Bracken's Brown Beauty has a compact full form with leaves that are dark rusty brown on the underside forming a nice contrast with the green above. (height-60 to 80', width-30 to 50')



Witchhazel

Witchhazel — *Hamamelis x intermedia* cultivars — A cross between Japanese and Chinese witchhazel this small tree or shrub is grown for its interesting yellow or red flowers that appear on bare branches in winter. Needs moist, acid, well-drained, organic soils in full to partial sun. (height-15 to 20', width-10 to 15')



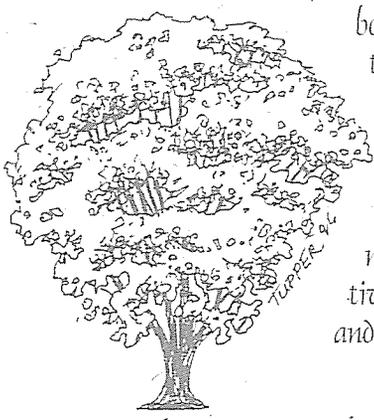
Hawthorn

Lacebark Elm — *Ulmus parvifolia* — An attractive tree, originally from the orient, with fine foliage and exfoliating mottled bark. It is medium sized with a rounded crown. Lacebark elm is a tough tree for a variety of locations. It is adaptable to a range of pH and poor soils and is resistant to Dutch elm disease. Don't confuse this tree with *Ulmus pumila*, Siberian elm; both are sometimes referred to as Chinese elm. This problem shows the worth of using Latin names when designating plants. (height-40 to 50', width 20 to 40')



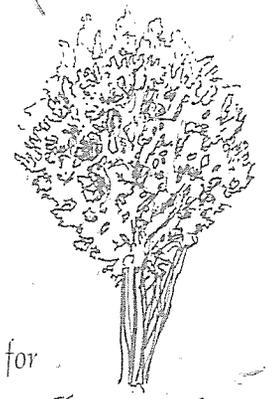
Lacebark Elm

Japanese Zelkova — *Zelkova serrata* cultivars, ('Village Green' and 'Green Vase') — A large tree, originally from the orient, with the arching branches and vase shape of American elm. It has attractive foliage and bark and is easily transplanted. Zelkova is also tolerant of drought and wind and a range of soil pH. (height and width-50 to 80')



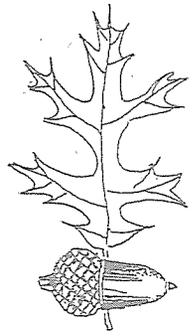
Japanese Zelkova

Crapemyrtle — *Lagerstroemia* hybrids — Really a large shrub that is trained into tree form. It prefers a hot sunny climate and will die back in an extremely harsh winter. Crapemyrtle is usually planted for its flowers which range from white to pink to red to purple. In addition to the flowers crapemyrtle has very attractive bark which is mottled brown and gray and exfoliating. There are many many cultivars to choose from. Look for the line named for Indian tribes. (height-15 to 25', width 10 to 15')



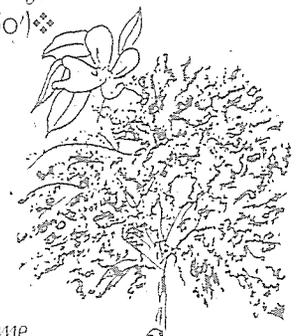
Crapemyrtle

Shumard Oak — *Quercus shumardii* — Related to the pin oak shumard oak is a pyramidal tree becoming more spreading later in life. It is somewhat drought tolerant and may even provide a russet-red fall color. (height and width-40 to 60')



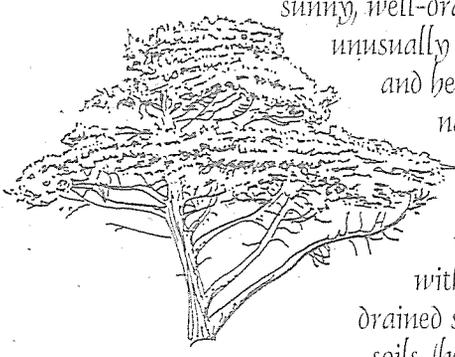
Shumard Oak

Flowering Crabapple — *Malus* cultivars ('Callaway', 'Centennial', 'Donald' Wyman', 'Prairifire') — Crabapples are a beautiful spring flowering tree often with attractive branches and fruit that keeps them interesting in winter. There are hundreds of cultivars to pick from but it is very important to be sure you are getting a disease resistant type. You may also choose your cultivar according to flower color, size of tree and flowering time. (height and width-15 to 25')



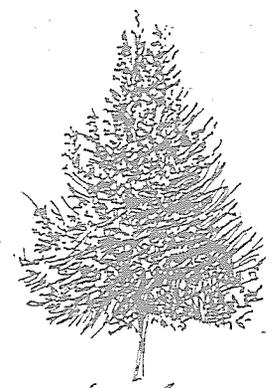
Crab Apple

European Hornbeam — *Carpinus betulus* — A small tree that grows best in a sunny, well-drained site but will adapt to a variety of urban conditions. It is unusually free of insect and disease problems and is often used for screens and hedges. There are many great cultivars, several of which have a narrow upright form. (height-40 to 60', width-30 to 40')



Japanese Black Pine

Japanese Black Pine — *Pinus thunbergia* — A native of Japan the Japanese black pine makes a nice accent tree with its uneven bonsai shape. It is easily transplanted to a moist, well drained site. It prefers full sun but is tolerant of heat, drought and sandy soils. (height-20 to 80', width-20 to 40')



Hornbeam



Tulip

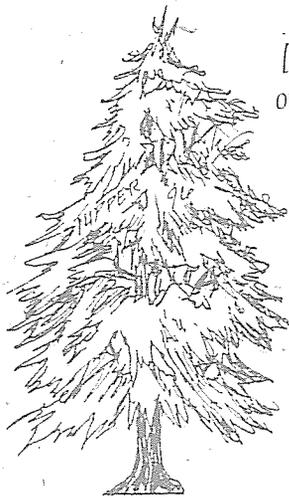
Poplar

Goldenrain tree — *Koelreuteria paniculata* — This is a really tough tree from the orient which withstands wide ranges of soil types and also drought, heat and wind. It grows short and wide with pretty yellow flowers in early summer and interesting papery pods which hang on in the fall. The goldenrain tree transplants easily and has few disease or insect problems. (height and width-30 to 40')



Golden Rain tree

Tulip Poplar — *Liriodendron tulipifera* — Tulip poplar is also known as yellow poplar and is the Tennessee state tree. It is one of the tallest, straightest and oldest of broad-leaved trees. Not a tree for small spaces but is magnificent as a mature specimen covered with tulip like green and orange flowers or yellow fall leaves. Tulip poplar is sometimes weak wooded and self pruning of lower branches may occur. (height-70 to 90', width-35 to 50') ❖



Baldcypress

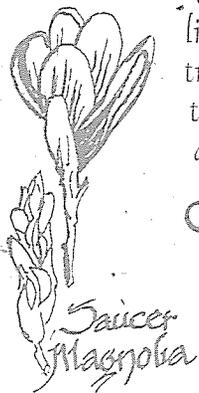
Northern Red Oak — *Quercus rubra* — This is a good oak for city life being pollution tolerant and disease and insect resistant. It just needs a sunny site with a soil ph on the acid side. On more alkaline sites the leaves may turn yellow from lack of iron. It also transplants easily and if cared for will outlive the person who plants it. (height and width-60 to 75') ❖



Northern Red Oak

Baldcypress — *Taxodium distichum* — A needle leaved deciduous tree that thrives in urban areas because of its tolerance of compacted soils. It is also adaptable to wet, dry and well drained soils but does need a sunny location. Baldcypress is a picturesque tree with a pyramidal shape and attractive leaf texture. It is a tall tree that needs enough room to look its best. (height-50 to 60', width-20 to 30')

Saucer and Star Magnolia — *Magnolia soulangiana* and *Magnolia kobus* var *stellata* — Both of these are very small, deciduous, ornamental trees with beautiful flowers. Saucer magnolia is often called tulip magnolia because of its tulip like flowers with a white interior and pink to purple exterior. Star magnolia is often more shrub like with white flowers with strap-like petals. Both of these trees may have their flowers frozen with a sudden spring drop in temperature leaving a mushy brown mess. Try to locate them in a protected site. (height and width- 20 to 30')



Saucer Magnolia

Chestnut Oak — *Quercus prinus* — Chestnut oak is a medium sized tree that grows naturally on poor, steep, rocky sites. This Tennessee native will spread as wide as it is tall. Oaks are generally planted for their solid, long life not their slow growth and lack of fall color. (height and width-60 to 70') ❖

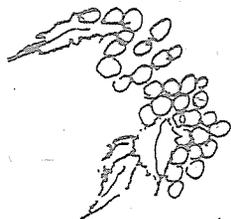


Chestnut Oak

...AND SHRUBS

Deciduous—

Glossy Abelia — *Abelia x grandiflora* and cultivars — 3 to 6 feet in height and width, this hybrid requires full sun to partial shade. Abelia produces small pink flowers from June through frost on its dense arching branches.



Chinese Holly

Red Chokeberry — *Aronia arbutifolia* and cultivars — 6 to 10 feet in height and 3 to 5 feet in width, chokeberry is planted for its bright red berries. It has an upright habit and can become leggy so is better massed in a group.

Japanese Barberry — *Berberis thunbergii* and cultivars (except dwarf cultivars) — A thorny shrub 3 to 6 feet by 4 to 7 feet which is extremely adaptable but does best in full sun. Check out the cultivars for different colors, sizes and shapes.

Flowering Quince — *Chaenomeles* cultivars ('Cameo', 'Jet Trail', 'Spitfire') — A shrub 6 to 10 feet in height and width it is grown for its beautiful white to pink to red spring flowers. It flowers best in full sun and forms a dense, twiggy, rounded mass. Not really a four season plant.



Forsythia

Burning Bush — *Euonymus alatus 'compactus'* — A large shrub, 15 to 20 feet in height and spread, that is very adaptable and makes a wonderful screen or mass. Grown particularly for its brilliant red fall color. Burning bush is becoming invasive in natural wooded areas.

Forsythia — *Forsythia* cultivars — A large shrub, 8 to 10 feet high and 10 to 12 feet wide, that is very beautiful when covered with yellow flowers in the spring but is often misused. It should be allowed room to grow with its branches arching to the ground, not pruned into hedges or balls.



Oak Leaf Hydrangea

Oakleaf Hydrangea — *Hydrangea quercifolia* and cultivars — A medium sized shrub, 4 to 6 feet in height and width, with full four season interest. Grown for its large beautiful flowers, large attractive leaves and exfoliating bark. Prefers partial shade to sun and mulch for a moist root environment.

Holly — *Ilex*, various species and cultivars — Hollies come in a great range of shapes, sizes, colors and berries; in addition to the thorny-leaved evergreen check out the deciduous hollies. They all have attractive berries and provide winter interest in the garden.

Beautybush — *Kolkwitzia amabilis* and cultivars — A 6 to 10 foot shrub with arching branches that form a vase like shape. Beautybush is grown for its pink bell-shaped spring flowers. Needs full sun for best flowering.

Spiraea — *Spiraea* spp, various cultivars — very variable in height and width, this plant is a tough deciduous shrub with small pink or white spring flowers.

Viburnum — *Viburnum* various species and cultivars — A large group of highly recommended plants that varies greatly in size, shape and flower. Usually grown for their flowers but many also have very attractive leaves and berry like fruits. Look for *Viburnum x juddi*, *Viburnum lantana*, *Viburnum plicatum*, *Viburnum rhytidophylloides*, *Viburnum utile* and their cultivars.

Evergreen —



Viburnum

Thorny Elaeagnus — *Elaeagnus pungens* and cultivars — A large shrub, 10 to 15 feet in height and spread, not for small spaces but does well with pruning. Easily grown and almost weed like, elaeagnus is good for banks, hedges and natural barriers. Attractive foliage is often used in floral arrangements

Chinese Juniper — *Juniperus chinensis* and cultivars The species is actually a large cone-shaped tree but the cultivars range from ground covers to hedges. Prefers moist well-drained conditions and full sun. Juniper provides evergreen texture and interest.

Leatherleaf Mahonia — *Mahonia bealei* — Grown for its coarse textured spiny leaves, its fragrant yellow flowers and blue berries. Leatherleaf mahonia is a large shrub, 6 to 10 feet high and 3 to 6 feet wide, that needs pruning to keep a reasonable size. It can be invasive in natural areas, birds love the berries and help spread it.

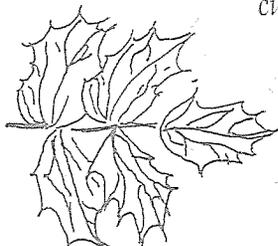
Heavenly Bamboo — *Nandina domestica* and cultivars (except dwarf) — An adaptable shrub as to sun, shade and soil, nandina is grown for its attractive green foliage that is tinted pink to bronze and beautiful red berries. Nandina grows 6 to 8 feet in height, less in spread. May become too tall and leggy if individual stems are not pruned at varying lengths.

Common Cherry Laurel — *Prunus laurocerasus* cultivars — A large to medium sized shrub that makes an attractive hedge in sun or shade. Cherry laurel must have good drainage to remain healthy. It is grown for its thick, shiny, dark green leaves.



Boxwood

Yew — *Taxus* various cultivars — A shrub for hedges and foundations depending on the cultivar. It has feathery needle leaves and red berries and will grow in sun or shade. Greatly variable in height and width depending on cultivar.



Mahonia

Arborvitae — *Thuja occidentalis* and cultivars (except dwarf) — A needle leaved evergreen with a pyramidal shape. Really a tree but cultivars are available which remain small. Arborvitae does best in full sun and moist soil where it will make a nice vertical accent.

American Boxwood — *Buxus sempervirens* and cultivars — A dense, rounded, small leaved evergreen shrub with an aristocratic, elegant look. It can reach 20 to 30 feet in height but is usually kept small with pruning. It is nice for foundation planting, hedges and masses of green. Does best in light shade with protection from the wind. Watch out for heavy snow and ice which can break down the branches.

Japanese Kerria — *Kerria japonica* — A 4 to 6 foot plant in height and width with graceful arching branches. Kerria is grown for its bright yellow flowers. It is a tough plant but prefers partial to full shade. May lose its leaves but the stems stay green.

PLAN

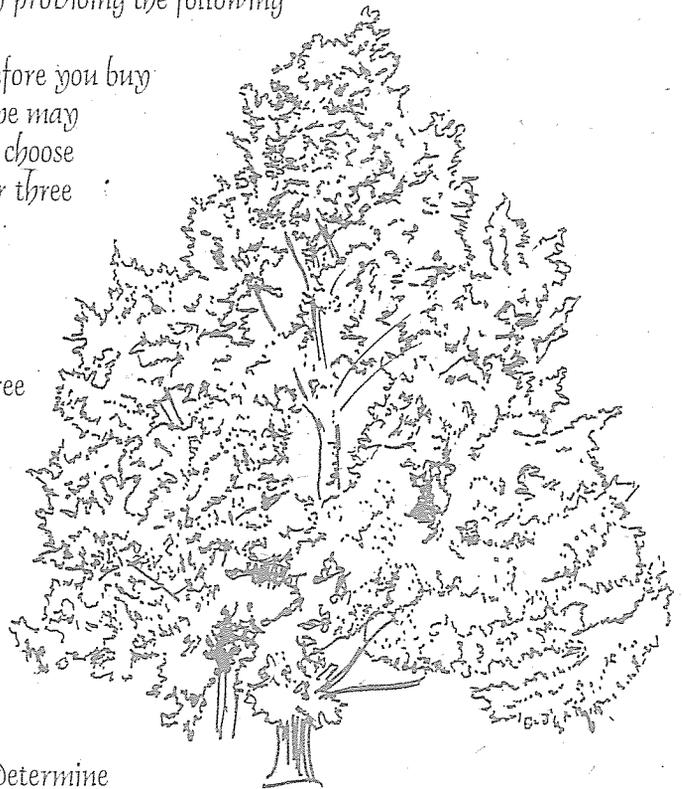
Choosing a new tree for your homescape can be an exciting but daunting experience. If you have the space for a tree—and trees come in many different sizes—then you have a wonderful opportunity to enhance the look of your home while improving the environment. On the other hand, picking a planting location, deciding on a species of tree, choosing the actual plant, and keeping your tree alive afterwards may seem an overwhelming task. This guide will help you with these tree planting decisions by providing the following helpful tips and recommendations.

It is very important when planting a tree to plan before you buy or dig. Long term tree health and the beauty of your landscape may depend on it. The many benefits of trees will be yours if you choose the right tree for the right place. To do this you must consider three things:

- Planting Purpose
- Site Selection
- Tree Selection

Purpose — Determine why you wish to plant a tree the reasons will help you choose the site. Some reasons for planting might be:

- Esthetics / Accents
- Shade / Summer Cooling
- Increase Property Value
- Wildlife Habitat
- Privacy / Sight or Sound Barrier
- Reduce Soil Erosion



Site Selection — Site conditions on your lot will determine what type of tree you will pick and how well it will grow. Take some time to consider the space you are trying to fill. Make sure you give your tree adequate room to grow. Know what a tree will look like at maturity and consider height, crown spread and root space when planting. Are there obstructions such as sidewalks, buildings or fences? Trees crowded in small spaces may crack sidewalks and paved areas. Consider horizontal branches and whether they will obstruct your view or grow into your driveway. How about overhead? Are there electrical or phone lines or other large trees that might block new tree growth? Also look for any obstacles to root growth. Tree roots grow far beyond the drip line of the leaves. For a healthy tree roots need space to grow and spread. Don't plant a tree where the root area will be compacted with vehicles or excessive foot traffic. Don't plant trees where the roots will interfere with underground utility lines. Call Tennessee One-Call BEFORE you dig — 1-800-351-1111. Think of clustering trees together rather than planting single trees or rows of trees. Groupings create their own environments and may survive better.

General tree planting guidelines suggest that small trees 30' or less in height should be planted at least 10' from buildings and 20' to 25' from power lines. Medium trees 30' to 70' in height should be planted at least 15' from buildings and 30' to 35' from power lines. Large trees, those reaching 70' or more in height should be planted at least 25 feet from buildings and 40' to 45' from power lines. No tree trunk, no matter how small the tree, should be within 10' of a utility pole.

When choosing your planting location consider using trees to shade your house from the hot summer sun or to provide shade for your air-conditioning unit. A well placed tree will block the rays of the sun and cool the air by transpiring moisture through the leaves. High, wide-crowned trees with deciduous leaves are the best providers of summer shade.

It is also important to evaluate the environmental conditions of any planting site. Is it sunny or shady; is it in a low lying wet area or on a high dry ridge? Have your soil's PH tested through the Agricultural Extension Service. The report you receive should help you decide if you need to add any amendments to the soil. Check your soil to see if it is rocky or sandy or full of clay. This will effect your soil's ability to hold moisture or drain correctly. To check the drainage of your site observe the area after a heavy rain. Look for areas that have standing water or that might be eroding. It is also a good idea to dig a hole about a foot deep and wide and fill it with water. If the water has not drained out in six hours, subsurface drainage may be a problem. You should also make sure that you will have access to water. Your new tree will need the equivalent of inch of rainfall each week to survive.

Tree Selection — You can save a lot of heartache and misery by carefully selecting a quality tree. There are many kinds of trees available for planting in this area. This guide has illustrated 41 of the Tree Advisory Committee's favorites and can aid you in deciding what to plant. Some questions to ask when deciding what to plant might be:

- What is tree's mature height?
- What is tree's mature shape?
- How fast does tree grow?
- Is it cold hardy for your area?
- What are its soil requirements?
- Does it require a shady or sunny site?
- Does it require a wet or dry site?
- Describe flowers and fruits.
- What is the autumn/spring color?
- Is the species unusually susceptible to certain insects or disease, or to storm damage?

Once you decide on the type of tree to plant you must pick a specific tree at the garden center or nursery. Carefully inspect the trees to choose the healthiest ones with the best form. Look for a straight, single trunk. No double trunks or multiple bunches of trunks unless you are specifically looking for a shrub like planting. Multiple trunks are often poorly attached to each other. Check for severe pruning cuts and wounds, (if trunk is wrapped check under wrapping). Inspect for dead bark, cankers, or signs of disease or insects on trunk or branches. Don't select trees with tight, vertical branches where bark is squeezed between two branches or between trunk and branch. If you are purchasing a balled in burlap tree the ball should be 12 inches wide for every inch of trunk diameter (measure trunk diameter 4 inches above root ball). If buying a container grown tree try lifting the tree out of the pot to check for circling roots. These roots can eventually choke a tree to death. Think about the leaves, fruits and seeds the tree may drop in your yard. Some trees, such as magnolia and London plane, have large leaves that are difficult to dispose of. Some trees have large seed pods that may stick bare feet or smash on your sidewalk. Just how neat and tidy do you expect your tree to be?

PLANT

After deciding where to plant your tree and choosing the best possible specimen, it is time to prepare the site and plant the tree. It is best to plant a tree during the dormant season — that is between November and March. During this period of dormancy, the tree can establish roots before new growth begins.

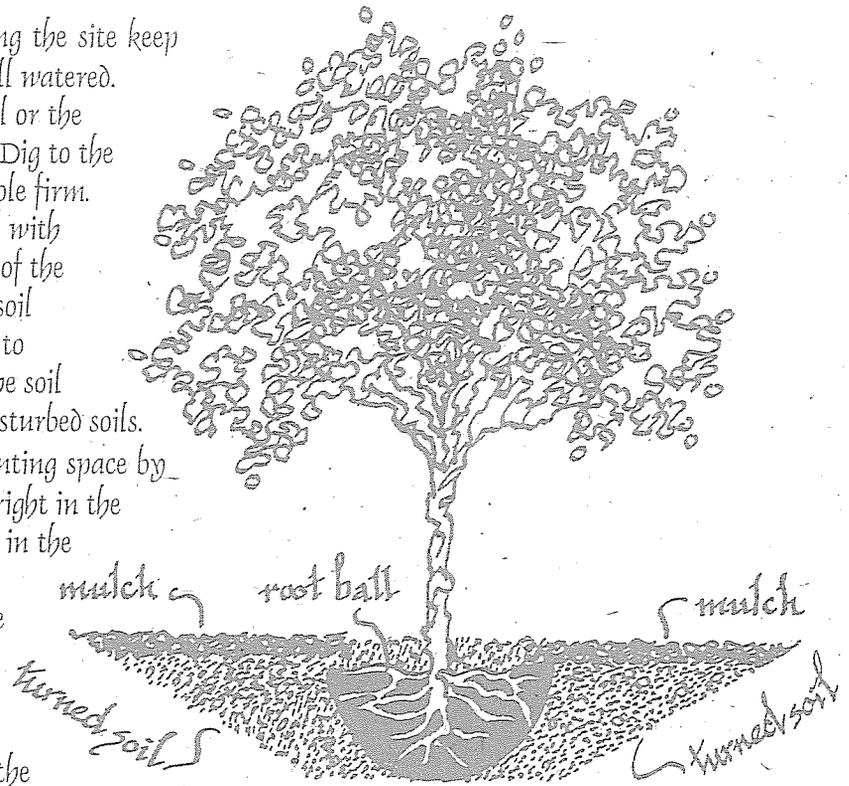
Useful Tools — Some useful tools to have on hand would be:

- Large spade or shovel
- Large tarp to hold soil
- Heavy duty wire clippers and scissors
- Measuring stick
- Pruning shears
- Small pruning saw
- Gloves

Preparing A Site — While preparing the site keep your tree in the shade and keep the root ball well watered. Measure the height and diameter of the root ball or the height and diameter of the soil in the container. Dig to the depth of the root ball. Leave the bottom of the hole firm. Dig the hole 2 to 5 times as wide as the root ball with sloping sides. Break up compacted soil. The sides of the planting space should not be packed. Retain the soil from the hole on a large tarp. Use this same soil to backfill the hole after planting. Do not amend the soil unless planting in building rubble or severely disturbed soils.

Planting — Lift the tree into the planting space by the root ball, not the trunk. Balance the tree upright in the center of the planting space. Set your new tree in the hole so that the root ball is at or a little above the surrounding soil level. Check the old soil line on the tree. It is usually a brownish ring on the trunk. Planting your tree too deep will cause the roots to suffocate. If planting a container grown tree, cut away the container just before the tree is put in the hole. Check the roots to see if they grow in a circular pattern around the container. Cut any large circling roots or pull them towards the outside. If

planting a balled in burlap tree or a tree in a wire basket cut away any string or twine and cut as much of the burlap or wire basket away as you can. Be sure that the burlap does not stick out above the soil, or it will draw water away from the roots. Use the pile of soil to backfill around the root ball. Remove any large rocks and break up any chunks of soil. Pack the soil firmly around the root ball but do not tightly compact it. When the hole is 2/3 full, water the soil to settle out any pockets of air. Finish backfilling until the soil is level with the top of the root ball. Use extra soil to build a berm 2 to 4 inches high around the planting area to hold water in the area of the tree's roots. Then finish watering the tree. Finish by putting a 3 inch layer of mulch around the tree. Keep the mulch several inches away from the tree trunk and don't pile it up like a volcano. Mulch will help to keep grass out, save water, provide organic matter for soil enrichment and keep lawn equipment such as string trimmers and lawn mowers away from the thin bark of a young tree. Remove any tree wrap, tape or string on trunk or up in branches. Trunks should be wrapped only to protect them in transit to the planting site. Don't fertilize at planting time. Don't stake your tree unless absolutely necessary. Trees grow better if allowed to stand on their own. If the root ball is in proportion with the rest of the tree it should stand up without staking. If you must stake your tree remove all wires and straps after one year. Prune only dead or injured branches, do not thin or top the tree to reduce height.



Planting Procedure

CARE

A consistent watering and maintenance plan is the best insurance against insect and disease problems. Schedule time to spend a moment simply looking at your tree. You'll be amazed how regular monitoring will reveal insight into the health and growth of your tree.

Watering — Watering is perhaps the most important step in caring for a newly planted tree. The tree should receive at least one inch of water per week, whether it comes from rainfall or watering. Forget about a quick dribble while you stand there holding the garden hose. Give it a slow, extended soaking for a couple of hours or more. Trees need watering regardless of the season, even during the winter.

Fertilize — Fertilize your trees only after having your soil tested and never fertilize stressed trees. Fertilizer is not tree food and should be applied only if needed.

Pruning — Pruning should be done with a purpose and not as an automatic routine. Remove dead and injured branches and those that are crossing and in contact with other branches. If you want to remove lower branches do it as soon as possible. Smaller wounds are less stressful to the tree. But never remove more than 1/4 of the entire tree. Good pruning doesn't show.

Prune with particular care. Proper pruning cuts may make the difference between a tree having a long healthy life or a short life. To cut correctly locate the branch collar, the slightly swollen ridge where the branch attaches to the trunk or a larger branch.

Make three cuts in all to avoid tearing the bark:

- 1 Cut 1/4 through the branch, from the bottom, several inches from the trunk
- 2 Cut through the branch, from the top, above the first cut leaving a long stub.
- 3 Make the final cut from top to bottom just outside the branch collar to remove the stub

Do not:

- make flush cuts behind the branch collar
- leave stubs, living or dead
- injure or remove the branch collar
- paint cuts, it doesn't prevent insects, disease or rot

The best time to prune living branches is in late dormant season or very early spring before leaves begin to open. Dead and injured branches can be pruned anytime.

Use sharp tools. Make clean cuts. Use equipment safely. Never prune near utility wires. Call an insured International Society of Arboriculture certified professional for advice on large pruning jobs, hazard trees and insect or disease problems.

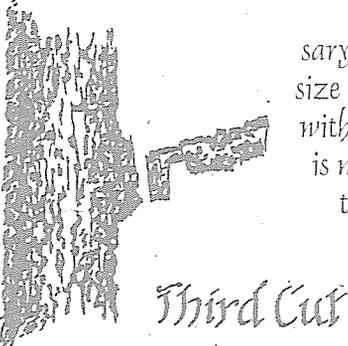
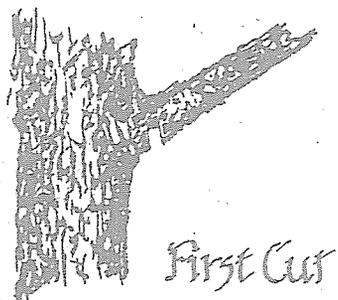
Never, ever top your trees. Topping is one of the most destructive and unnecessary techniques practiced today. There are many alternative pruning methods when the size and shape of a tree needs to be controlled. With a little care and skill this can be done without ruining the tree's beauty and usefulness. To a worker with a saw, topping a tree is much easier than applying the skill and judgement of good pruning. Therefore, topping may cost less in the short run. However, the true costs of topping are hidden.

These include: reduced property value, the expense of removal and replacement if the tree dies, the loss of other trees and shrubs if they succumb to changed light conditions, the risk of liability from weakened branches, and increased future maintenance. Contact a qualified arborist, preferably an International Society of

Arboriculture certified arborist for more details.

Why not to top:

- topping removes so many leaves a tree may starve
- topping causes shock from sun scalding
- large wounds are highly vulnerable to insect invasion and the spores of decay fungi
- new growth after topping is weakly attached
- new growth is also very rapid and returns to its original height in a very short time
- some older trees can not tolerate topping and will die quickly
- A topped tree is an ugly tree. It has lost all its grace and character.



PROTECTION

Many people who love trees may unknowingly cause them injury. Tree problems may be caused by:

- construction
- soil compaction
- lawn and garden equipment
- lawn and garden chemicals
- wounds to the trunk

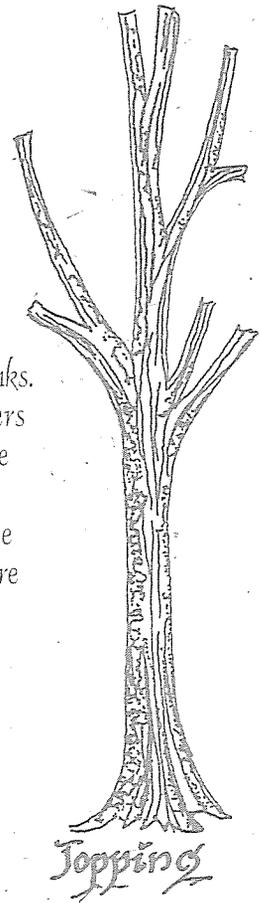
Trees are often injured by earthmoving equipment and by changes in soil level. Roots can be injured when heavy equipment passes over them. Parking a truck under a tree can quickly compact the soil so that roots can't grow. Digging trenches can also injure enough roots to kill a tree.

The addition of asphalt, concrete, bricks or more than a few inches of soil around trees will change the amount of water and oxygen available to the roots. Protect trees from construction by fencing off a large area around the tree, at least to the drip line before construction starts.

Lawnmowers, string trimmers and other garden equipment can severely injure trunks, branches and roots of trees. To prevent accidentally injuring young trees with lawn mowers, grass should be kept away from the tree trunks.

Don't use chemicals to kill the grass. Mulch instead. Fertilizers and pesticides can either help or harm your trees. Beware of the idea that "if a little is good, a lot will be better". Avoid excessive use of commercial fertilizer-herbicide mixtures near trees, because

toxic amounts of herbicides may be absorbed by tree roots. Recently transplanted trees are especially susceptible to herbicide injury.



DON'T PLANT THESE

Potentially Undesirable Trees:

- Boxelder — *Acer negundo* — weak wood, reproduces prolifically
- Silver Maple — *Acer saccharinum* — weak wood, prone toward splitting
- Tree of Heaven — *Ailanthus altissima* — coarse growth habit, sprouts up everywhere
- Mimosa — *Albizia julibrissin* — reproduces prolifically, disease prone
- Hackberry — *Celtis occidentalis* — weak wood, messy berries
- Female Ginkgo — *Ginkgo biloba* — female tree has fruit with objectionable odor
- Honeylocust — *Gleditsia triacanthos* — has large thorns on trunk and branches
- Osage Orange — *Maclura pomifera* — large fruits can be a nuisance
- Flowering Crabapple — *Malus hybrids* — disease prone clones only
- Red Mulberry — *Morus rubra* — produces fruit that stains
- Hybrid Poplar — *Populus hybrid* — has weak wood
- Bradford Pear — *Pyrus calleryana* 'Bradford' — prone to splitting as it gets older
- Siberian Elm — *Ulmus pumila* — constantly drops branches

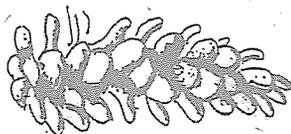
Invasive Exotics You May Want To Avoid:

- Autumn Olive — *Elaeagnus umbellata*
- Burning Bush — *Euonymus alatus*
- Bush Honeysuckle — *Lonicera* spp.
- Japanese Barberry — *Berberis thunbergii*
- Multiflora Rose — *Rosa multiflora*
- Privet — *Ligustrum* spp.
- Climbing Euonymus — *Euonymus fortunei*
- Japanese Honeysuckle — *Lonicera japonica*



Bush Honeysuckle

It is often smart to use native plants and avoid invasive exotics. Many exotics are harmless but some pose serious threats to biodiversity. Exotics that escape and naturalize change the composition of native plant communities and out-compete natives. Exotics have also been known to introduce diseases and insects that can decimate native plant populations. Some non-native plants are acceptable if kept away from natural settings or not allowed to produce seeds which can be spread. Natives, on the other hand, are adapted to our regional conditions, may require less maintenance and are cost-effective. They may also require fewer pesticides and fertilizers because of natural adaptations.



Resources

There is plenty of information available to help you select the right tree for your purpose. Consider the following resources if you need more information about planting trees or shrubs.

- Tennessee One-Call System, Inc. - "Call Before You Dig", 1800 351-1111, www.tnonecall.com
- Labeled trees with a printed guide are located at Vanderbilt University and at Centennial Park. Guides for the Centennial Park Trail are available free at the Parthenon
- Two good reference books that describe trees and shrubs are:

| | |
|---|-----------------------------------|
| <i>Manual of Woody Landscape Plants</i> | <i>Trees For American Gardens</i> |
| Michael Dirr | Donald Wyman |
| Stipes Publishing Co. | Macmillian Publishers |
| 10-12 Chester St. | 866 Third Ave. |
| Champaign, IL 61820 | New York, NY 10022 |
- Stephan Kivett, Metro Nashville Urban Forester, Codes Department (615) 862-6488
- Shawn Bible, Metro Beautification & Environment Nashville (615) 862-8400
- Nashville Tree Foundation - 3322 West End Ave. Nashville, TN 37203 (615) 292-5175
- Warner Parks Nature Center - 7311 Hwy. 100, Nashville, TN 37221 (615) 352-6299
- Linda Lynch, City of Brentwood, (615) 371-0060
- Erin Kinney, Brentwood Parks and Recreation, (615) 371-0080
- Tracy Jackson, Clarksville Tree Board, (931) 552-1054 / (931) 624-2580
- Gary Tuttle, Clarksville Urban Forester, (931) 645-7464 / (931) 320-1693
- Guy Zimmerman, Cookeville Area Forester, (931) 528-6813
- Jeff Fitzpatrick, Cookeville Utility Forester, (931) 520-5420
- Tennessee Urban Forestry Council - 6820 Cloudland Dr., Nashville, TN 37205 (615) 352-8985
- Tennessee Department of Agriculture/Forestry Division, Bruce Webster, Urban Forester (615) 837-5436
- Agricultural Extension Service - 800 2nd Ave. N., Nashville, TN 37201 (615) 862-5995
- The National Arbor Day Foundation - 100 Arbor Ave., Nebraska City, NE 68410
- International Society of Arboriculture, Southern Chapter - 213 Apollo Dr., Mount Airy, NC 27030 (336) 789-4747
www.isasouthern.org
- American Forests - PO Box 2000, Washington, DC 20013, www.americanforests.org

This Guide Sponsored By:

Metro Parks and Recreation

Metro Beautification & Environment Commission

Tennessee Department of Agriculture/Forestry Division

Tennessee Urban Forestry Council

Metro Tree Advisory Committee

Brentwood Tree Committee

Clarksville Tree Board

Cookeville Tree Board

Illustrated by Kathy Tupper 2001

Written and Edited by Shawn Bible

