

**Selecting Tree Species for Planting Notes:**

1. All selected tree species shall be in accordance with the latest edition of ANSI Z60.1 America Standards for Nursery Stock.
2. Species selection shall be based upon site conditions, area (urban or suburban), and topography.
3. Proper species selection will vary from Urban to Suburban areas for consideration ambient heat tolerance from the concrete heat island effect, or tolerance to pollutants from runoff if placed in bio-swales or rain gardens for instance.
4. Topography can affect the method in which the species shall be installed if the grade changes are steep in slope. Wet or dry tolerant species selection should also be based on topographical site condition since it affects whether or not runoff or the water table provides wet or dry conditions.
5. No large or medium growth trees should be planted near overhead utilities lines and should be planted at the recommended distance.
6. Trees should be selected to maximize canopy coverage, such as planting large growth trees over medium or small growth trees when applicable.
7. A soil sample and tests should be conducted prior to selecting a tree species for a site, and tree species shall be selected based on the pH, soil structure, drainage, and compaction of the soil.
8. When applicable, trees native to East Tennessee should be selected over exotic trees.
9. Trees on the recommended species list or only recommendations and other trees may be selected with approval of the urban forester.

**Small Tree Notes**

- A. Plant small trees 10 to 20 feet away from utility lines
- B. Plant small trees 10 feet away from buildings
- C. Plant small trees 10 to 20 feet away from other small trees
- D. Recommended root space is approximately 40 square feet of lawn
- E. Most small growth trees are suitable for planting near overhead utility lines, but may still need to be pruned if they grow into utility safety zones

**SMALL TREE GROUP: Mature Height Less than 30'**

	Form	Growth Rate	Aesthetic Flowers	Fall Color	Recommended Street Tree	Urban Areas***	Wet Tolerant	Drought Tolerant	Shade Tolerant
Amur Maple ( <i>Acer ginnala</i> )	Variable	Slow	Yes	Yellow	Minimal Use	No	No	No	Intermediate
Paperbark Maple ( <i>Acer griseum</i> )#	Upright to Oval	Slow	No	Red	Minimal Use	Yes	No	No	Intermediate
Japanese Maple ( <i>Acer palmatum</i> )#	Variable	Slow to Medium	No	Red	No	No	No	No	Yes
Red Buckeye* ( <i>Aesculus pavia</i> )	Round	Medium	Yes	Indistinct	Minimal Use	No	No	No	Yes
Serviceberry* ( <i>Amelanchier</i> spp.)#	Variable	Medium	Yes	Various	Minimal Use	No	Intermediate	No	Intermediate
Pawpaw* ( <i>Asimina triloba</i> )!	Pyramidal to Upright	Medium	No	Yellow	No	No	No	No	Yes
Eastern Redbud* ( <i>Cercis canadensis</i> )#!	Round to Spreading	Medium	Yes	Yellow	Yes	Yes	No	Yes	Intermediate
Chinese Fringetree ( <i>Chionanthus retusus</i> )#	Round to Spreading	Slow	Yes	Yellow	Minimal Use	No	No	No	Intermediate
American Fringetree* ( <i>Chionanthus virginicus</i> )#	Round to Spreading	Slow	Yes	Yellow	Minimal Use	No	No	No	Intermediate
Pagodia Dogwood ( <i>Cornus alternifolia</i> )	Spreading	Slow to Medium	Yes	Purple	Minimal Use	No	No	No	Yes
Flowering Dogwood* ( <i>Cornus florida</i> )#!	Spreading	Medium	Yes	Purple	Minimal Use	No	No	No	Yes
Kousa Dogwood ( <i>Cornus kousa</i> )#	Vaseshape to Round	Slow	Yes	Red	Minimal Use	Yes	No	Yes	Yes
European Smoketree ( <i>Cotinus coggygria</i> )	Upright to Spreading	Medium	Yes	Various	Minimal Use	No	No	No	No
American Smoketree* ( <i>Cotinus obovatus</i> )#	Upright to Oval	Medium	Yes	Various	Minimal Use	No	No	No	No
Cockspur Hawthorn ( <i>Crataegus crusgalli</i> )	Round to Spreading	Slow to Medium	Yes	Bronze	Yes	Yes	No	No	No
Carolina Silverbell* ( <i>Halesia tetraptera</i> )!	Round	Medium	Yes	Yellow	Minimal Use	No	No	No	Intermediate
Witch-hazel* ( <i>Hamamelis virginiana</i> )	Round to Open	Medium	Yes	Yellow	No	No	No	No	Intermediate
Foster Holly ( <i>Ilex x attenuate</i> "Foster")	Pyramidal to Upright	Slow	No	Evergreen	No	No	No	No	Intermediate
Crapemyrtle ( <i>Lagerstroemia indica</i> )#!	Vaseshape	Fast	Yes	Various	Yes	Yes	No	Yes	No
Amur Maackia ( <i>Maackia amurensis</i> )#	Round to Spreading	Slow	Yes	Indistinct	Yes	Yes	No	Yes	No
"Little Gem" Magnolia ( <i>Magnolia grandiflora</i> )#	Upright to Oval	Slow	Yes	Evergreen	Yes	No	Intermediate	No	Intermediate
Flowering Crabapple ( <i>Malus</i> spp.)!	Round	Medium to Fast	Yes	Yellow	Yes	No	No	No	No
Persian Ironwood ( <i>Parrotia persica</i> )#	Upright to Oval	Medium	Yes	Yellow	Yes	Yes	No	Yes	Intermediate
Oriental Cherries ( <i>Prunus serrulata</i> )#	Variable	Medium	Yes	Various	Yes	Yes	No	Yes	No
Mountain Stewartia ( <i>Stewartia ovata</i> )	Round to Oval	Slow	Yes	Orange	No	No	No	No	Intermediate
Rusty Blackhaw* ( <i>Viburnum rufidulum</i> )	Oval to Open	Medium	Yes	Burgundy	No	No	Intermediate	Yes	Yes

\* Native to Tennessee  
 \*\*\*These trees are recommended for downtown planting spaces and wells  
 # Recommended for narrow planting areas (single stem only)  
 ! Some cultivars may grow over 30 feet in height

**Medium Tree Notes**

- A. Plant medium trees 20 to 50 feet away from utility lines
- B. Plant medium trees 20 to 30 feet away from buildings
- C. Plant medium trees 20 to 30 feet away from other medium trees
- D. Recommended root space is approximately 166 square feet of lawn

**MEDIUM TREE GROUP: Mature Height 30' - 50'**

	Form	Growth Rate	Aesthetic Flowers	Fall Color	Recommended Street Tree	Urban Areas***	Wet Tolerant	Drought Tolerant	Shade Tolerant
Hedge Maple ( <i>Acer campestre</i> )	Round to Oval	Slow	No	Yellow	Yes	Yes	No	Yes	Intermediate
Trident Maple ( <i>Acer buergerianum</i> )	Round to Oval**	Slow to Medium	No	Orange	Yes	Yes	No	Yes	No
River Birch* ( <i>Betula nigra</i> )	Pyramidal to Round**	Medium to Fast	No	Yellow	Minimal Use	No	Yes	No	No
European Hornbeam ( <i>Carpinus betulus</i> )	Upright to Oval	Slow to Medium	No	Yellow	Yes	Yes	No	No	Intermediate
American Hornbeam* ( <i>Carpinus caroliniana</i> )	Oval	Slow	No	Various	Yes	No	Intermediate	No	Intermediate
Catalpa* ( <i>Catalpa speciosa</i> )	Oval	Medium to Fast	Yes	Indistinct	Minimal Use	No	No	Yes	Intermediate
Atlas Cedar ( <i>Cedrus atlantica</i> )	Pyramidal**	Slow	No	Evergreen	No	No	No	No	Intermediate
Deodar Cedar ( <i>Cedrus deodara</i> )	Pyramidal	Medium	No	Evergreen	No	No	No	No	No
Atlantic White Cedar ( <i>Chamaecyparis thyoides</i> )	Pyramidal to Upright	Medium	No	Evergreen	No	No	Intermediate	No	No
Yellowwood* ( <i>Cladrastis kentukea</i> )	Round**	Medium	Yes	Yellow	Yes	Yes	No	No	No
Turkish Fibert ( <i>Corylus colurna</i> )	Pyramidal	Medium	No	Indistinct	Yes	Yes	No	Yes	No
Cryptomeria ( <i>Cryptomeria japonica</i> )	Pyramidal**	Medium	No	Evergreen	No	No	No	No	Intermediate
American Persimmon* ( <i>Diospyros virginiana</i> )	Oval	Slow to Medium	No	Yellow	Minimal Use	No	No	No	No
Hardy Rubber Tree ( <i>Eucommia ulmoides</i> )	Round	Medium	No	Indistinct	Yes	Yes	No	Yes	Intermediate
American Holly* ( <i>Ilex opaca</i> )	Round	Medium	No	Evergreen	Minimal Use	No	No	No	Yes
Eastern Red Cedar* ( <i>Juniperus virginiana</i> )	Upright to Oval	Slow to Medium	No	Evergreen	Minimal Use	No	No	Yes	Yes
Golden Raintree ( <i>Koeleruteria paniculata</i> )	Round	Medium	Yes	Yellow	Yes	Yes	No	Yes	No
Sweetbay Magnolia* ( <i>Magnolia virginiana</i> )	Upright to Open	Medium	Yes	Yellow	No	No	Yes	No	Yes
Eastern Hophornbeam* ( <i>Ostrya virginiana</i> )	Pyramidal to Round**	Slow	No	Yellow	Yes	Yes	Intermediate	No	Yes
Sourwood* ( <i>Oxydendrum arboreum</i> )	Pyramidal to Oval	Slow	Yes	Various	Minimal Use	No	No	No	Intermediate
Austrian Pine ( <i>Pinus nigra</i> )	Pyramidal	Medium	No	Evergreen	No	No	No	Yes	No
Japanese Red Pine ( <i>Pinus densiflora</i> )	Upright to Open	Slow to Medium	No	Evergreen	No	No	No	No	No
Chinese Pistache ( <i>Pistacia chinensis</i> )	Round	Medium	No	Orange	Yes	Yes	No	Yes	No
Overcup Oak* ( <i>Quercus lyrata</i> )	Round to Spreading	Medium	No	Yellow	Yes	Yes	Intermediate	Yes	No
Black Locust* ( <i>Robinia pseudoacacia</i> )	Upright to Oval	Fast	Yes	Indistinct	No	No	No	Yes	No
Weeping Willow ( <i>Salix babylonica</i> )	Round to Weeping	Fast	No	Indistinct	No	No	Yes	Yes	No
Sassafras* ( <i>Sassafras albidum</i> )	Oval to Open	Medium to Fast	Yes	Various	No	No	No	No	No
Japanese Pagoda ( <i>Sophora japonica</i> )	Upright to Spreading	Medium to Fast	Yes	Indistinct	Yes	Yes	No	Yes	No
Little-leaf Linden ( <i>Tilia cordata</i> )	Pyramid to Oval	Medium	No	Yellow	No	No	No	Yes	No
Silver Linden ( <i>Tilia tomentosa</i> )	Pyramid to Oval	Medium	No	Yellow	Yes	Yes	No	Yes	No
Smooth Leaf Elm ( <i>Ulmus carpinifolia</i> )	Upright to Spreading	Medium	No	Yellow	Yes	Yes	No	No	No
Lace-bark Elm ( <i>Ulmus parvifolia</i> )	Vaseshape to Spreading**	Medium to Fast	No	Yellow	Yes	Yes	No	Yes	No
Zeakova ( <i>Zeakova serrata</i> )	Vaseshape**	Medium	No	Various	Yes	Yes	No	Yes	No

\* Native to Tennessee

\*\* Some cultivars are recommended to plant next to buildings

\*\*\* These trees are recommended for downtown planting spaces and wells

**Large Tree Notes**

- A. Plant large trees 50 feet away from utility lines
- B. Plant large trees 30 to 40 feet away from buildings
- C. Plant large trees 30 to 40 feet away from other large trees
- D. Recommended root space is approximately 250 square feet of lawn

**LARGE TREE GROUP: Mature Height More than 50' tall and more**

	Form	Growth Rate	Aesthetic Flowers	Fall Color	Recommended Street Tree	Urban Areas***	Wet Tolerant	Drought Tolerant	Shade Tolerant
Red Maple* ( <i>Acer rubrum</i> )	Rounded to Oval**	Medium	Yes	Red	Minimal Use	No	Yes	No	Intermediate
Sugar Maple* ( <i>Acer saccharum</i> )	Rounded**	Medium to Slow	No	Yellow	Minimal Use	No	No	No	Yes
Yellow Buckeye* ( <i>Aesculus flava</i> )	Rounded	Medium to Fast	Yes	Orange	Minimal Use	No	Intermediate	No	Yes
Pecan* ( <i>Carya illinoensis</i> )	Oval	Medium	No	Yellow	No	No	Intermediate	Yes	No
Common Hackberry* ( <i>Celtis occidentalis</i> )	Pyramidal to Round	Medium to Fast	No	Yellow	No	No	No	Yes	Intermediate
American Beech* ( <i>Fagus grandifolia</i> )	Round to Open	Slow	No	Bronze	No	No	No	No	Yes
European Beech* ( <i>Fagus sylvatica</i> )	Upright to Oval**	Slow to Medium	No	Bronze	Minimal Use	No	No	No	Intermediate
Ginkgo ( <i>Ginkgo biloba</i> ) <b>MALE ONLY</b>	Pyramidal to Round**	Medium	No	Yellow	Yes	Yes	No	Yes	No
Thornless Honeylocust* ( <i>Gleditsia triacanthos</i> )	Round	Medium to Fast	No	Yellow	Yes	Yes	No	Yes	No
Kentucky Coffee tree* ( <i>Gymnocladus dioica</i> )	Oval to Open**	Slow to Medium	No	Yellow	Yes	Yes	No	Yes	No
Sweetgum* ( <i>Liquidambar styraciflua</i> )	Pyramidal to Oval	Medium to Fast	No	Various	Yes	No	Yes	No	No
Tulip Poplar* ( <i>Liriodendron tulipifera</i> )	Pyramidal to Oval	Fast	Yes	Yellow	Yes	No	No	No	No
Cucumber tree Magnolia ( <i>Magnolia acuminata</i> )	Pyramidal to Spreading	Medium to Fast	Yes	Brown	Minimal Use	No	No	No	Intermediate
Southern Magnolia* ( <i>Magnolia grandiflora</i> )	Pyramidal**	Slow to Medium	Yes	Evergreen	No	No	No	Yes	Intermediate
Dawn Redwood ( <i>Metasequoia glyptostroboides</i> )	Pyramidal**	Medium to Fast	No	Yellow	Yes	No	No	No	No
Blackgum* ( <i>Nyssa sylvatica</i> )	Pyramidal	Slow to Medium	No	Various	Yes	No	Yes	Yes	Intermediate
Shortleaf Pine* ( <i>Pinus echinata</i> )	Conical to Oval	Medium	No	Evergreen	No	No	No	Yes	No
Pitch Pine* ( <i>Pinus rigida</i> )	Conical to Oval	Medium	No	Evergreen	No	No	No	Yes	No
White Pine* ( <i>Pinus strobus</i> )	Conical to Oval**	Medium to Fast	No	Evergreen	No	No	No	No	Intermediate
Loblolly Pine* ( <i>Pinus taeda</i> )	Conical to Oval	Fast	No	Evergreen	No	No	Intermediate	Yes	No
Virginia Pine* ( <i>Pinus virginiana</i> )	Conical to Open	Slow	No	Evergreen	No	No	No	Yes	No
London Planetree ( <i>Platanus X acerifolia</i> )	Pyramidal to Open	Medium	No	Yellow	Yes	Yes	No	No	Intermediate
American Sycamore* ( <i>Platanus occidentalis</i> )	Pyramidal to Open	Medium to Fast	No	Yellow	No	No	Yes	No	Intermediate
Sawtooth Oak ( <i>Quercus acutissima</i> )	Round	Medium	No	Yellow	Yes	Yes	No	Yes	No
White Oak* ( <i>Quercus alba</i> )	Round to Spreading	Slow to Medium	No	Red	Minimal Use	No	No	No	No
Swamp White Oak* ( <i>Quercus bicolor</i> )	Round	Medium	No	Yellow	Yes	No	Yes	Yes	No
Scarlet Oak* ( <i>Quercus coccinea</i> )	Round	Medium	No	Red	Minimal Use	No	No	No	No
Laurel Oak ( <i>Quercus hemisphaerica</i> )	Pyramidal to Spreading	Medium	No	Brown	Minimal Use	Yes	No	Yes	No
Southern Red Oak* ( <i>Quercus falcata</i> )	Spreading	Slow to Medium	No	Red	No	No	No	No	No
Bur Oak* ( <i>Quercus macrocarpa</i> )	Round to Spreading	Slow	No	Yellow	Minimal Use	No	Yes	Yes	No
Swamp Chestnut Oak* ( <i>Quercus michauxii</i> )	Round	Medium	No	Orange	No	No	Yes	No	No
Chinkapin Oak* ( <i>Quercus muehlenbergii</i> )	Round	Slow to Medium	No	Indistinct	Minimal Use	No	No	No	No
Pin Oak* ( <i>Quercus palustris</i> )	Pyramidal to Rounded	Medium to Fast	No	Various	No	No	Yes	No	No
Willow Oak* ( <i>Quercus phellos</i> )	Pyramidal to Rounded**	Medium	No	Yellow	Yes	Yes	Yes	Yes	No
Chestnut Oak* ( <i>Quercus prinus</i> )	Rounded	Medium	No	Orange	Yes	No	Yes	Yes	No
English Oak ( <i>Quercus robur</i> )	Upright to Round**	Slow to Medium	No	Indistinct	Minimal Use	No	No	No	No
Northern Red Oak* ( <i>Quercus rubra</i> )	Rounded	Medium to Fast	No	Red	Yes	No	No	No	No
Shumard Oak* ( <i>Quercus shumardii</i> )	Rounded	Medium	No	Red	Minimal Use	Yes	No	Yes	No
Black Oak* ( <i>Quercus velutina</i> )	Round to Open	Slow to Medium	No	Red	Minimal Use	No	No	Yes	No
Bald Cypress* ( <i>Taxodium distichum</i> )	Pyramidal**	Medium	No	Orange	Yes	Yes	Yes	No	No
American Basswood* ( <i>Tilia americana</i> )	Pyramidal to Rounded	Medium	No	Indistinct	Minimal Use	No	No	No	Intermediate
Winged Elm* ( <i>Ulmus alata</i> )	Vaseshape to Round	Medium	No	Yellow	Minimal Use	No	No	No	No
American Elm* ( <i>Ulmus americana</i> )	Vaseshape	Medium to Fast	No	Yellow	Yes	Yes	Yes	Yes	Intermediate

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 \*\* Some cultivars are recommended to plant next to buildings  
 \*\*\* These trees are recommended for downtown planting spaces and wells



**Fruit Tree Notes**

- A. Plant all trees 10 to 20 feet away from utility lines
- B. Fruit trees need extra care to maintain edible fruits
- C. Additional material should be reviewed through your local agricultural extension agency

**FRUIT and NUT TREE GROUP: Edible Trees that can grow in Tennessee**

	Form	Growth Rate	Aesthetic Flowers	Fall Color	Recommended Street Tree	Suitable Near Utility Lines**	Wet Tolerant	Drought Tolerant	Shade Tolerant
Serviceberry* ( <i>Amelanchier</i> spp.)	Variable	Medium	Yes	Various	Minimal Use	Yes	Intermediate	No	Intermediate
Pawpaw* ( <i>Asimina triflora</i> )	Pyramidal to Upright	Medium	No	Yellow	No	No	No	No	Yes
Pecan* ( <i>Carya illinoensis</i> )	Oval	Medium	No	Yellow	No	No	Intermediate	Yes	No
Chinese chestnut ( <i>Castanea mollissima</i> )	Round	Slow to Medium	No	Yellow	Yes	No	No	Intermediate	Intermediate
American hazelnut* ( <i>Corylus americana</i> )	Variable	Medium to Fast	No	Indistinct	Yes	Yes	No	No	Intermediate
Turkish Filbert ( <i>Corylus colurna</i> )	Pyramidal	Medium	No	Indistinct	Yes	No	No	Yes	No
American Persimmon* ( <i>Diospyros virginiana</i> )	Oval	Slow to Medium	No	Yellow	Minimal Use	No	No	No	No
Japanese Persimmon ( <i>Diospyros kaki</i> )	Round to Spreading	Medium	No	Various	Minimal Use	No	No	No	No
Ginkgo ( <i>Ginkgo biloba</i> )	Pyramidal to Round	Medium	No	Yellow	Minimal Use	No	No	Yes	no
Black walnut* ( <i>Juglans nigra</i> )	Round to Spreading	Medium	No	Yellow	Minimal Use	No	No	Yes	No
Edible apple ( <i>Malus pumila</i> )	Variable	Medium	Yes	Yellow	Minimal Use	Yes	No	No	No
White mulberry ( <i>Morus alba</i> )	Variable	Medium to Fast	Yes	Yellow	Minimal Use	No	No	Yes	Intermediate
Red mulberry* ( <i>Morus rubra</i> )	Variable	Fast	Yes	Yellow	Minimal Use	No	No	Yes	Intermediate
American plum* ( <i>Prunus americana</i> )	Spreading	Medium	Yes	Red	Yes	Yes	No	Yes	No
Chickasaw plum ( <i>Prunus angustifolia</i> )	Spreading	Medium	Yes	Red	Yes	Yes	No	Intermediate	No
Sweet cherry ( <i>Prunus avium</i> )	Round to Spreading	Medium	Yes	Yellow	Yes	Yes	No	Intermediate	No
Sour cherry ( <i>Prunus cerasus</i> )	Round to Spreading	Medium	Yes	Yellow	Yes	Yes	No	Intermediate	No
Common peach ( <i>Prunus persica</i> )	Round to Spreading	Medium	Yes	Yellow	Minimal Use	Yes	No	No	No
Common pear ( <i>Pyrus communis</i> )	Upright	Medium	Yes	Red	Minimal Use	No	No	No	No

\* Native to Tennessee

\*\*All trees should be planted at least 20 feet from under utility lines if possible