

**Texas Supplement
to the
Guide for Plant Appraisal – 9th Edition**

**Published by the Texas Chapter –
International Society of Arboriculture**



Third Approximation

Updated - January, 2019

Introduction

This document represents the third approximation of the “Texas Supplement to the Guide for Plant Appraisal”, developed by the Texas Regional Plant Appraisal Committee under the auspices of the Texas Chapter - International Society of Arboriculture. It is intended to be utilized as a companion or supplement to the 9th Edition of the Guide for Plant Appraisal, written by the Council of Tree and Landscape Appraisers and published by the International Society of Arboriculture.

Methodology

Species Ratings

The Species ratings used in the Second Approximation of the Supplement have been left unchanged in this Third Approximation. The trees listed in this document have been assigned Species ratings based upon the following criteria:

- A) Pollution tolerance
- B) Tolerance to soil compaction
- C) Insect and disease resistance
- D) Flood tolerance
- E) Longevity
- F) Specific gravity of greenwood

The above-mentioned characteristics are inherent to each particular species and, for the most part, do not change when these species are grown in different areas of the state. The appraiser is encouraged to consider, however, that some species perform differently when grown in different parts of a state as large as Texas.

Factors such as cold and heat tolerance, soil drainage and pH issues, adaptability to local rainfall rates, and susceptibility to local insect and disease threats may need to be considered when developing an accurate Species Rating for a particular tree species. In addition, the appraisal assignment may require that the appraiser consider other factors that make a tree desirable or undesirable for a particular application, such as the ability to withstand wind, ice, or snow damage; presence of pleasing flowers or other visual attributes; potential for a particular species to become invasive; potential for harmful allergen production; relative overall maintenance costs; and/or other factors that render a particular species suitable or unsuitable for a particular application.

The appraiser is encouraged, therefore, to adjust the Species Ratings provided in this Supplement to reflect how a particular species would be expected to perform in a given area within the state. For example, to quote an excerpt from the 6th Edition of the Guide:

“Cornus florida, flowering dogwood, may be an excellent small tree in one county but undesirable in an adjoining county due to differences in soil structure, drainage, and pH.”

In the above-mentioned example, the 63% Species Rating for flowering dogwood provided in this Supplement might be adjusted upward for locales with acidic soils, but adjusted downward in areas with more alkaline soils. Similarly, the 45% Species Rating given for *Morus alba*, fruitless mulberry, might be appropriate for many urban areas across the state, but may need to be adjusted upward for parts of western Texas and the Panhandle where this species tends to offer a reasonably long lifespan and is one of the few trees that can be easily grown.

Unit Tree Cost / Largest Commonly Available Transplantable Tree Size

The Third Approximation of the Texas Supplement to the Guide for Plant Appraisal relies on **Unit Tree Cost** data and other research previously conducted during development of the Second Approximation. The Texas Regional Plant Appraisal Committee currently recommends that **\$87.00** per square inch of trunk cross-sectional area, be used, on a statewide basis, as the Unit Tree Cost for the Trunk Formula Method.

The \$87.00 Unit Tree Cost provided represents an installed and guaranteed cost for a 3" caliper, high-quality tree. The **Largest Commonly Available Transplantable Tree Size (LCA)**, for use with the Trunk Formula Method, is 3" in caliper.

The criteria used for determining the Largest Commonly Available Transplantable Tree Size is:

- 1) Largest commonly available size of three high-quality nursery tree species
- 2) A common size of trees transplanted within the state of Texas
- 3) Largest commonly available size of trees that are readily available in large quantities (100+)

As is the case with the Species Ratings provided, the appraiser may need to develop alternative Unit Tree Cost data or LCA criteria to better accommodate the unique requirements of a particular appraisal assignment.

Species Ratings

Species	Common Name	Rating
<i>Acacia farnesiana</i>	Huisache	45%
<i>Acer barbatum</i>	Florida Sugar Maple	45%
<i>Acer grandidentatum</i>	Bigtooth Maple	80%
<i>Acer leucoderme</i>	Chalk Maple	45%
<i>Acer negundo</i>	Boxelder	51%
<i>Acer rubrum</i>	Red Maple	45%
<i>Acer rubrum (drummondii)</i>	Drummond Red Maple	45%
<i>Acer saccharinum</i>	Silver Maple	45%
<i>Ailanthus altissima</i>	Tree of Heaven	80%
<i>Albizia julibrissin</i>	Silktree	38%
<i>Arbutus texana</i>	Madrone	80%
<i>Betula nigra</i>	River Birch	55%
<i>Betula papyfera</i>	Paperbark Birch	55%
<i>Broussonetia papyrifera</i>	Paper Mulberry	45%
<i>Bumelia lanuginosa</i>	Gum Bumelia	78%
<i>Carpinus caroliniana</i>	American Hornbeam	64%
<i>Carya illinoensis</i>	Pecan improved varieties	48%
<i>Carya illinoensis</i>	Pecan (Native)	68%
<i>Carya spp.</i>	Hickories	67%
<i>Castanea spp.</i>	Chestnuts	67%
<i>Catalpa spp.</i>	Catalpa	73%
<i>Cedrus atlantica</i>	Blue Atlas Cedar	68%
<i>Cedrus deodora</i>	Deodar Cedar	85%
<i>Cedrus libani</i>	Lebanon Cedar	75%
<i>Celtis laevigata</i>	Sugarberry	65%
<i>Celtis occidentalis</i>	Common Hackberry	65%
<i>Cercis canadensis</i>	Redbud	45%
<i>Cercis canadensis texensis</i>	Texas Red Bud	45%
<i>Cercis reniformis</i>	Mexican Redbud	45%
<i>Chilopsis linearis</i>	Desert Willow	86%
<i>x Chitalpa tashkentensis</i>	Chitalpa	75%
<i>Cornus florida</i>	Dogwood	63%
<i>Cupressocyparis leylandii</i>	Leland Cypress	43%
<i>Cupressus arizonica</i>	Arizona Cypress	73%
<i>Dermatophyllum secundiflorum</i>	Texas Mountain Laurel	73%
<i>Diospyros texana</i>	Texas Persimmon	93%
<i>Diospyros virginiana</i>	Common Persimmon	65%
<i>Ehretia anacua</i>	Anaqua	86%

Species	Common Name	Rating
<i>Fagus grandifolia</i>	American Beech	63%
<i>Firmiana simplex</i>	Chinese Parasol Tree	60%
<i>Fraxinus americana</i>	White Ash	80%
<i>Fraxinus pennsylvanica</i>	Green Ash	80%
<i>Fraxinus texana</i>	Texas Ash	80%
<i>Fraxinus velutina</i>	Arizona Ash	71%
<i>Ginkgo biloba</i>	Ginkgo	86%
<i>Gleditsia triacanthos</i>	Honey Locust	55%
<i>Juglans nigra</i>	Black Walnut	66%
<i>Juglans regia</i>	English Walnut	73%
<i>Juniperus spp.</i>	Junipers, "Cedars"	87%
<i>Koelreuteria bipinnata</i>	Southern Golden Raintree	60%
<i>Koelreuteria paniculata</i>	Panicled Golden Raintree	60%
<i>Lagerstroemia indica</i>	Crapemyrtle	80%
<i>Liquidambar styraciflua</i>	Sweetgum	67%
<i>Liriodendron tulipifera</i>	Tulip Tree, Yellow Poplar	53%
<i>Maclura pomifera</i>	Bois D'Arc (female)	53%
<i>Maclura pomifera</i>	Bois D'Arc (male)	80%
<i>Magnolia grandiflora</i>	Southern Magnolia	53%
<i>Malus spp.</i>	Crabapples and Apples	53%
<i>Melia azedarach</i>	Chinaberry	53%
<i>Morus alba</i>	Fruitless Mulberry	45%
<i>Morus rubrum</i>	Red Mulberry	56%
<i>Nyssa sylvatica</i>	Black tupelo	75%
<i>Ostrya virginiana</i>	Eastern Hop Hornbeam	60%
<i>Parkinsonia aculeata</i>	Palo Verde	65%
<i>Persea borbonia</i>	Red Bay	68%
<i>Pinus echinata</i>	Shortleaf Pine	78%
<i>Pinus edulis</i>	Pinyon Pine	80%
<i>Pinus eldarica</i>	Afghan Pine	45%
<i>Pinus ellotii</i>	Slash Pine	70%
<i>Pinus flexilis</i>	Limber Pine	60%
<i>Pinus halepensis</i>	Aleppo Pine	50%
<i>Pinus nigra</i>	Austrian Pine	75%
<i>Pinus palustris</i>	Longleaf Pine	87%
<i>Pinus pinea</i>	Italian Stone Pine	86%
<i>Pinus ponderosa</i>	Ponderosa Pine	50%
<i>Pinus sylvestris</i>	Scotch Pine	55%
<i>Pinus taeda</i>	Loblolly Pine	80%
<i>Pinus thunbergii</i>	Japanese Black Pine	60%
<i>Pistacia chinensis</i>	Chinese Pistache	86%

Species	Common Name	Rating
<i>Pistacia texana</i>	Texas Pistache	80%
<i>Platanus mexicana</i>	Mexican Sycamore	60%
<i>Platanus occidentalis</i>	Sycamore	60%
<i>Populus alba</i>	White Poplar	38%
<i>Populus spp.</i>	Cottonwood & Poplar	67%
<i>Prosopis glandulosa</i>	Honey Mesquite	100%
<i>Prunus mexicana</i>	Mexican Plum	60%
<i>Prunus serotina</i>	Black Cherry	66%
<i>Pyrus calleryana</i>	Callery Pear	60%
<i>Pyrus spp.</i>	Pears	60%
<i>Quercus marilandica</i>	Blackjack Oak	67%
<i>Quercus acutissima</i>	Sawtooth Oak	80%
<i>Quercus alba</i>	White Oak	64%
<i>Quercus buckleyi (formerly texana)</i>	Spanish or Texas Red Oak	65%
<i>Quercus durandii</i>	Durand Oak	80%
<i>Quercus falcata</i>	Southern Red Oak	76%
<i>Quercus fusiformis</i>	Escarpment Live Oak	85%
<i>Quercus laceyi</i>	Lacey Oak	85%
<i>Quercus laurifolia</i>	Laurel Oak	80%
<i>Quercus lyrata</i>	Overcup Oak	92%
<i>Quercus macrocarpa</i>	Bur Oak	86%
<i>Quercus michauxii</i>	Swamp Chestnut Oak	76%
<i>Quercus muhlenbergii</i>	Chinkapin Oak	80%
<i>Quercus nigra</i>	Water Oak	68%
<i>Quercus nuttallii</i>	Nuttall Oak	92%
<i>Quercus pagodaefolia</i>	Cherrybark Oak	74%
<i>Quercus phellos</i>	Willow Oak	76%
<i>Quercus polymorpha</i>	Monterey Oak	80%
<i>Quercus shumardii</i>	Shumard Red Oak	80%
<i>Quercus sinuata</i>	Shin Oak	70%
<i>Quercus stellata</i>	Post Oak	80%
<i>Quercus velutina</i>	Black Oak	53%
<i>Quercus virginiana</i>	Live Oak	100%
<i>Robinia pseudoacacia</i>	Black Locust	73%
<i>Sapium sebiferum</i>	Chinese Tallow	66%
<i>Styphnolobium affine</i>	Eve's Necklace	70%
<i>Salix spp.</i>	Willows	53%
<i>Sapindus drummondii</i>	Western Soapberry	65%
<i>Taxodium distichum</i>	Bald Cypress	80%
<i>Taxodium mucronatum</i>	Montezuma Cypress	80%
<i>Thuja occidentalis</i>	Arborvitae	73%

Species	Common Name	Rating
<i>Tilia americana</i>	Basswood	40%
<i>Ulmus alata</i>	Winged Elm	74%
<i>Ulmus americana</i>	American Elm	73%
<i>Ulmus crassifolia</i>	Cedar Elm	78%
<i>Ulmus parvifolia</i>	Chinese Elm	73%
<i>Ulmus parvifolia sempervirens</i>	Evergreen Elm	80%
<i>Ulmus procera</i>	English Elm	70%
<i>Ulmus pumila</i>	Siberian Elm	51%
<i>Ulmus rubra</i>	Red Elm	55%
<i>Zanthoxylum clava-herculis</i>	Hercules Club	55%
<i>Zelkova serrata</i>	Zelkova	70%
<i>Ziziphus jujuba</i>	Jujube	40%

Closing Remarks

The tree appraisal process is continually evolving and changing. The Texas Regional Plant Appraisal Committee may update and/or revise the Texas Supplement to the Guide at any time.

Acknowledgements

Special recognition and thanks are offered to the following committee members for their assistance and expertise during the development of this Third Approximation of the Texas Supplement to the Guide:

Dayton Archer, Greg David, Emily King, Russell Peters, Jerry Pulley, Larry Schaapveld, David Vaughan, Todd Watson, and Pat Wentworth .

References

1. Guide for Plant Appraisal, 9th Edition. 2000. Council of Tree and Landscape Appraisers.
2. Trees of North Texas, Robert A. Vines. 1982. University of Texas Press.
3. Texas Supplement to the Guide for Plant Appraisal. 1992. International Society of Arboriculture - Texas.
4. Texas Supplement to the Guide for Plant Appraisal, Second Approximation. 2003. International Society of Arboriculture - Texas.
5. Website: http://www.bls.gov/data/inflation_calculator.htm