



# Guide to Appraisal of Tree Species in Kentucky Landscapes

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Qualified green industry professionals are often called upon to determine monetary values for landscape trees. This request may occur as a result of intentional or unintentional damage caused by another individual, insurance claims, or condemnation of a property by eminent domain. Valuation is determined by considering four factors:

- Species
- Size (trunk diameter measured at 4.5 feet above the ground)
- Condition (i.e. vigor, vitality, habit, etc.)
- Aesthetic and environmental contributions to the landscape

This publication is intended to aid professionals in determining the value of species in the Commonwealth of Kentucky. This valuation method is not appropriate for shrubs, forest trees, pasture trees, trees being used for income (i.e. orchards, nursery production, Christmas tree production, etc.). It is solely for trees that are an integral part of a formal, managed landscape. Sentimentality and punitive damages do not enter into this valuation method but may be considered by the judicial system. For additional information on this process, consult *What is Your Tree Worth?* (ID-240) at <http://www2.ca.uky.edu/agcomm/pubs/ID/ID240/ID240.pdf>.

The values for individual species presented in this document were determined by a committee of green industry professionals considering four genetically influenced factors associated with success of these species in Kentucky landscapes. These include:

## Climate Adaptability

- Cold hardiness
- Frost tolerance
- Drought tolerance
- Storm (ice, snow, wind)

## Growth Characteristics

- Tolerance to different sites
- Vigor
- Structural strength
- Aesthetics
- Life expectancy
- Pruning requirements
- Potential to be invasive

## Soil Adaptability

- Structure and texture
- Drainage
- Moisture requirements
- Acid/alkaline
- Mineral element limitations

## Resistance/Tolerance to Biotic and Abiotic Challenges

- Disease
- Insect
- Air pollution

This publication is a guide, not a standard. It enables an experienced assessor to assign an unbiased assessment of the monetary value of trees too large to replace. The assessor may deviate, with cause, from the species rating presented in this publication. These deviations must be defensible by the assessor in a court of law or other venue questioning a valuation by an assessor.

Extensive variations in soils and climate exist throughout the Commonwealth. Species suitable in one region may not survive in other areas. Even small residential lots can have extreme variations in soil and environmental conditions. Valuations assigned to a species assumes that the species has been appropriately cited and maintained. These values are based on the professional observations of the individuals throughout their professional careers.

The percent assigned to each species appears as a 10-point range from 10 to 100 percent (i.e. 60-70%, 70-80%, etc.) with the mid-point (i.e. 65%, 75%, etc.) being the average for most members of a species. Values to the high or low end of the range are for genetically superior or inferior individuals. Value does not fall to zero and generally does not go below 10 percent.

Valuations of 90 or 100 percent are not a guarantee of the potential to survive. No species is adapted to all cultural or environmental conditions found in the Commonwealth. Significant variation often exists between individuals belonging to the same species, even when they are grown under the same cultural conditions. Some of these variations can be identified as different cultivars of the same species or interspecific hybrids not listed in this publication. It is the responsibility of the evaluator to identify genetically influenced factors and to assess the suitability of an individual for the site, to determine the environmental history of the site, and to learn how these conditions have potentially influenced the growth and development of the individual plant being assessed.

These values have been organized alphabetically by botanical name and percent value. The most frequently used common names are included in both lists. The list by percentage values may be useful in developing a landscape plan that makes use of species known to be successful in the region. Species diversity is important in developing a healthy, sustainable landscape and urban forest. The goal should be that the community and region do not include more than 10 percent of any genus. Using this list to make selections does not negate the need to do an accurate site assessment or determine the cultural requirements of species.

It is widely assumed that we are in a period of climate change, but it is not possible to accurately determine future environmental conditions, acts of God, new diseases and insects, or other cultural challenges that may occur. This guide was developed based on a species' history and the observations of the professionals

responsible for developing these values.

Questions on the suitability of a species for culture in your location should be directed to your county cooperative extension agent for horticulture, agriculture and natural resources, or green industry professional. Assistance in developing a valuation related to prop-

erty loss can also be obtained from an International Society of Arboriculture Certified Arborist® ([www.TreesAreGood.org](http://www.TreesAreGood.org)) or American Society of Consulting Arborists Registered Consulting Arborist® (<http://www.ascaconsultants.org>) in conjunction with legal counsel.

**Table 1. Species ratings** (alphabetical by botanical name)

Species (common name)	Rating %
<i>Abies balsamea</i> (balsam fir)	10-20
<i>Abies cilicica</i> (Cilician fir)	70-80
<i>Abies concolor</i> (white fir)	60-70
<i>Abies fraseri</i> (Fraser fir)	20-30
<i>Abies nordmanniana</i> (Nordmann fir)	60-70
<i>Abies procera</i> (noble fir)	30-40
<i>Acer buergerianum</i> (trident maple)	70-80
<i>Acer campestre</i> (hedge maple)	80-90
<i>Acer diabolicum</i> (devil's maple)	30-40
<i>Acer griseum</i> (paperbark maple)	80-90
<i>Acer griseum</i> x <i>maximowicziana</i> (Girard maple)	70-80
<i>Acer japonicum</i> (fullmoon maple)	60-70
<i>Acer maximowiczianum</i> (nikko maple)	60-70
<i>Acer miyabei</i> (miyabe maple)	80-90
<i>Acer negundo</i> (boxelder)	20-30
<i>Acer palmatum</i> (Japanese maple)	60-70
<i>Acer pensylvanicum</i> (striped maple)	20-30
<i>Acer platanoides</i> (Norway maple)	30-40
<i>Acer pseudoplatanus</i> (sycamore maple)	30-40
<i>Acer rubrum</i> (red maple, seedling forms)	60-70
<i>Acer rubrum</i> (red maple, improved cultivars)	70-80
<i>Acer saccharinum</i> (silver maple, water maple)	60-70
<i>Acer saccharum</i> (sugar maple)	70-80
<i>Acer saccharum nigrum</i> (black maple)	70-80
<i>Acer spicatum</i> (mountain maple)	20-30
<i>Acer tegmentosum</i> (Manchustriped maple)	20-30
<i>Acer tataricum</i> (Tatarian maple)	50-60
<i>Acer tataricum ginnala</i> (Amur maple)	60-70
<i>Acer truncatum</i> (shantung maple)	80-90
<i>Aesculus xcarnea</i> (red horsechestnut)	60-70
<i>Aesculus flava</i> (yellow buckeye)	60-70
<i>Aesculus glabra</i> (Ohio buckeye)	60-70
<i>Aesculus hippocastanum</i> (common horsechestnut)	60-70
<i>Aesculus parviflora</i> (bottlebrush buckeye)	80-90
<i>Aesculus pavia</i> (red buckeye)	60-70
<i>Ailanthus altissima</i> (tree of heaven)	10-20
<i>Albizia julibrissin</i> (mimosa)	10-20
<i>Alnus glutinosa</i> (European black alder)	40-50
<i>Amelanchier arborea</i> (downy serviceberry)	60-70
<i>Amelanchier canadensis</i> (common serviceberry)	60-70
<i>Amelanchier xgrandiflora</i> (apple serviceberry)	70-80
<i>Amelanchier laevis</i> (Allegheny serviceberry)	70-80
<i>Aralia elata</i> (Japanese angelica)	60-70
<i>Aralia spinosa</i> (devil's walkingstick)	60-70
<i>Asimina triloba</i> (pawpaw)	70-80
<i>Betula lenta</i> (sweet birch)	60-70
<i>Betula lutea</i> (yellow birch)	60-70
<i>Betula maximowicziana</i> (monarch birch)	50-60
<i>Betula nigra</i> (river birch)	70-80
<i>Betula papyrifera</i> (paper birch)	20-30

**Table 1. Species ratings** (continued)

Species (common name)	Rating %
<i>Betula pendula</i> (European white birch)	20-30
<i>Betula platyphylla</i> (Japanese white birch)	30-40
<i>Betula populifolia</i> (gray birch)	50-60
<i>Caragana arborescens</i> (Siberian peashrub)	10-20
<i>Carpinus betulus</i> (European hornbeam)	70-80
<i>Carpinus caroliniana</i> (American hornbeam)	70-80
<i>Carpinus cordata</i> (heartleaf hornbeam)	70-80
<i>Carpinus japonica</i> (Japanese hornbeam)	70-80
<i>Carya aquatica</i> (water hickory, bitter pecan)	40-50
<i>Carya glabra</i> (bitternut, pignut)	60-70
<i>Carya labra</i> (pignut)	50-60
<i>Carya illinoensis</i> (pecan)	60-70
<i>Carya laciniata</i> (shellbark hickory)	70-80
<i>Carya ovata</i> (shagbark hickory)	70-80
<i>Carya pallida</i> (sand hickory)	40-50
<i>Carya tomentosa</i> (mockernut hickory)	60-70
<i>Castanea dentata</i> (American chestnut, blight resistant hybrid)	40-50
<i>Castanea mollissima</i> (Chinese chestnut)	40-50
<i>Catalpa bignonioides</i> (common catalpa)	60-70
<i>Catalpa speciosa</i> (northern catalpa)	60-70
<i>Cedrus libani atlantica</i> (Atlas cedar)	60-70
<i>Cedrus libani deodara</i> (deodar cedar)	30-40
<i>Cedrus libani stenocoma</i> (hardy cedar of Lebanon)	70-80
<i>Celtis laevigata</i> (sugar hackberry)	70-80
<i>Celtis occidentalis</i> (common hackberry)	60-70
<i>Cercidiphyllum japonicum</i> (katsuratree)	80-90
<i>Cercis canadensis</i> (eastern redbud)	60-70
<i>Chamaecyparis lawsoniana</i> (Lawson falsecypress)	30-40
<i>Chamaecyparis nootkatensis</i> (Alaska cedar)	50-60
<i>Chamaecyparis obtusa</i> (hinoki falsecypress)	50-60
<i>Chamaecyparis pisifera</i> (sawara falsecypress)	50-60
<i>Chionanthus retusus</i> (Chinese fringetree)	70-80
<i>Chionanthus virginicus</i> (white fringetree)	70-80
<i>Cladrastis kentukea</i> (Kentucky yellowwood)	70-80
<i>Cornus alternifolia</i> (pagoda dogwood)	60-70
<i>Cornus amomum</i> (silky dogwood)	60-70
<i>Cornus florida</i> (flowering dogwood)	60-70
<i>Cornus kousa</i> (kousa dogwood)	60-70
<i>Cornus mas</i> (cornelian cherry dogwood)	80-90
<i>Cornus officinalis</i> (Japanese cornelian cherry dogwood)	80-90
<i>Cornus racemosa</i> (gray dogwood)	60-70
<i>Corylus americana</i> (American filbert)	50-60
<i>Corylus avellana</i> 'Contorta' (contorted filbert, Harry Lauder's walking stick)	50-60
<i>Corylus colurna</i> (Turkish filbert)	70-80
<i>Corylus maxima</i> (giant filbert)	40-50
<i>Cotinus coggygria</i> (smoketree)	50-60
<i>Cotinus obovatus</i> (American smoketree)	60-70
<i>Crataegus crus-galli</i> (cockspur hawthorn)	50-60
<i>Crataegus lavalleyi</i> (lavalley hawthorn)	60-70

**Table 1. Species ratings (continued)**

Species (common name)	Rating %
<i>Crataegus phaenopyrum</i> (Washington hawthorn)	60-70
<i>Crataegus viridis</i> 'Winter King' (winter king hawthorn)	60-70
<i>xCupressocyparis leylandii</i> (Leyland cypress)	10-20
<i>Diospyros virginiana</i> (persimmon)	60-70
<i>Elaeagnus angustifolia</i> (Russian olive)	10-20
<i>Eucommia ulmoides</i> (hardy rubber tree)	80-90
<i>Euonymus alata</i> (burningbush)	20-30
<i>Euonymus bungeana</i> (winterberry euonymus)	20-30
<i>Euonymus europaea</i> (European spindle tree)	20-30
<i>Fagus grandifolia</i> (American beech)	80-90
<i>Fagus sylvatica</i> (European beech)	80-90
<i>Franklinia alatamaha</i> (Franklin tree)	40-50
<i>Fraxinus americana</i> (white ash, untreated for EAB)	10-20
<i>Fraxinus americana</i> (white ash, treated for EAB)	60-70
<i>Fraxinus excelsior</i> (European ash, untreated for EAB)	10-20
<i>Fraxinus excelsior</i> (European ash, treated for EAB)	20-30
<i>Fraxinus nigra</i> (black ash, untreated for EAB)	10-20
<i>Fraxinus nigra</i> (black ash, treated for EAB)	20-30
<i>Fraxinus pennsylvanica</i> (green ash, untreated for EAB)	10-20
<i>Fraxinus pennsylvanica</i> (green ash, treated for EAB)	40-50
<i>Fraxinus quadrangulata</i> (blue ash, untreated for EAB)	20-30
<i>Fraxinus quadrangulata</i> (blue ash, treated for EAB)	60-70
<i>Ginkgo biloba</i> (ginkgo, male)	90-100
<i>Ginkgo biloba</i> (ginkgo, female)	40-50
<i>Gleditsia aquatica</i> (water locust)	20-30
<i>Gleditsia triacanthos</i> (thorny honeylocust)	20-30
<i>Gleditsia triacanthos inermis</i> (thornless honeylocust)	60-70
<i>Gymnocladus dioica</i> (Kentucky coffeetree, female)	80-90
<i>Gymnocladus dioica</i> (Kentucky coffeetree, male)	90-100
<i>Halesia tetraptera</i> (silverbell)	70-80
<i>Hamamelis mollis</i> (Chinese witchhazel)	70-80
<i>Hamamelis virginiana</i> (common witchhazel)	70-80
<i>Heptacodium miconioides</i> (seven-son flower)	50-60
<i>Hibiscus syriacus</i> (rose of Sharon, non-cultivar)	20-30
<i>Hibiscus syriacus</i> (rose of Sharon, named cultivars)	60-70
<i>Hydrangea paniculata</i> (peegee hydrangea)	70-80
<i>Ilex decidua</i> (possumhaw)	80-90
<i>Ilex opaca</i> (American holly)	70-80
<i>Ilex pedunculosa</i> (longstalk holly)	50-60
<i>Ilex serrata</i> (Japanese winterberry)	50-60
<i>Juglans cinerea</i> (butternut)	50-60
<i>Juglans nigra</i> (black walnut)	50-60
<i>Juglans regia</i> (English walnut)	50-60
<i>Juniperus chinensis</i> (Chinese juniper)	80-90
<i>Juniperus communis</i> (common juniper)	30-40
<i>Juniperus scopulorum</i> (Rocky Mountain juniper)	30-40
<i>Juniperus virginiana</i> (eastern redcedar)	80-90
<i>Koelreuteria paniculata</i> (golden raintree)	70-80
<i>Laburnum watereri</i> (golden chaintree)	20-30
<i>Lagerstroemia fauriei</i> (Japanese crapemyrtle)	30-40
<i>Lagerstroemia indica</i> (common crapemyrtle)	20-30
<i>Larix decidua</i> (European larch)	60-70
<i>Larix kaempferi</i> (Japanese larch)	60-70
<i>Larix laricina</i> (American larch)	40-50
<i>Liquidambar styraciflua</i> (sweetgum)	70-80
<i>Liriodendron tulipifera</i> (tulip poplar)	70-80
<i>Lonicera maackii</i> (Amur bush honeysuckle)	10-20
<i>Lonicera tatarica</i> (Tatarian bush honeysuckle)	10-20
<i>Maackia amurensis</i> (Amur maackia)	80-90
<i>Maclura pomifera</i> (Osage orange, male)	90-100

**Table 1. Species ratings (continued)**

Species (common name)	Rating %
<i>Maclura pomifera</i> (Osage orange, female or unnamed selection)	60-70
<i>Magnolia</i> sp. (magnolia, named cultivar or hybrid)	70-80
<i>Magnolia acuminata</i> (cucumber magnolia)	70-80
<i>Magnolia fraseri</i> (Fraser magnolia)	60-70
<i>Magnolia grandiflora</i> (southern magnolia, outside western KY)	60-70
<i>Magnolia grandiflora</i> (southern magnolia, in western KY)	70-80
<i>Magnolia heptapeta</i> (Yulan magnolia)	70-80
<i>Magnolia liliiflora</i> (lily magnolia)	70-80
<i>Magnolia xloebneri</i> (Loebner magnolia)	80-90
<i>Magnolia macrophylla</i> (bigleaf magnolia)	60-70
<i>Magnolia xsoulangiana</i> (saucer magnolia)	70-80
<i>Magnolia stellata</i> (star magnolia)	70-80
<i>Magnolia tripetala</i> (umbrella magnolia)	60-70
<i>Magnolia virginiana</i> (sweetbay magnolia)	80-90
<i>Magnolia virginiana australis</i> (sweetbay magnolia, southern form)	80-90
<i>Malus</i> sp. (crabapple)	60-70
<i>Malus</i> sp. (crabapple, improved cultivars)	70-80
<i>Malus pumila</i> (apple)	60-70
<i>Metasequoia glyptostroboides</i> (dawn redwood)	80-90
<i>Morus alba</i> (white mulberry, male)	30-40
<i>Morus alba</i> (white mulberry, female)	10-20
<i>Morus rubra</i> (red mulberry)	20-30
<i>Nyssa aquatica</i> (water blackgum)	80-90
<i>Nyssa sylvatica</i> (blackgum)	90-100
<i>Ostrya carpinifolia</i> (European hophornbeam)	70-80
<i>Ostrya virginiana</i> (hophornbeam)	80-90
<i>Oxydendrum arboreum</i> (sourwood)	60-70
<i>Parrotia persica</i> (Persian parrotia)	70-80
<i>Paulownia tomentosa</i> (royal paulownia, princess tree)	20-30
<i>Phellodendron amurense</i> (Amur cork tree)	70-80
<i>Picea abies</i> (Norway spruce)	80-90
<i>Picea engelmannii</i> (Engelmann spruce)	60-70
<i>Picea glauca</i> (white spruce)	60-70
<i>Picea omorika</i> (Serbian spruce)	70-80
<i>Picea orientalis</i> (oriental spruce)	80-90
<i>Picea pungens</i> (Colorado spruce)	70-80
<i>Picea pungens</i> var. <i>glauca</i> (blue Colorado spruce)	70-80
<i>Picea rubens</i> (red spruce)	50-60
<i>Pinus banksiana</i> (jack pine)	40-50
<i>Pinus bungeana</i> (lacebark pine)	80-90
<i>Pinus cembra</i> (Swiss stone pine)	70-80
<i>Pinus densiflora</i> (Japanese red pine)	70-80
<i>Pinus echinata</i> (shortleaf pine)	50-60
<i>Pinus flexilis</i> (limber pine)	70-80
<i>Pinus koraiensis</i> (Korean pine)	70-80
<i>Pinus mugo</i> (Swiss mountain pine)	50-60
<i>Pinus nigra</i> (Austrian pine)	30-40
<i>Pinus parviflora</i> (Japanese white pine)	70-80
<i>Pinus peuce</i> (Macedonian pine)	40-50
<i>Pinus ponderosa</i> (ponderosa pine)	40-50
<i>Pinus resinosa</i> (red pine)	50-60
<i>Pinus rigida</i> (pitch pine)	40-50
<i>Pinus strobus</i> (eastern white pine)	60-70
<i>Pinus sylvestris</i> (Scots pine, scotch pine)	40-50
<i>Pinus taeda</i> (loblolly pine)	50-60
<i>Pinus thunbergii</i> (Japanese black pine)	40-50
<i>Pinus virginiana</i> (Virginia pine)	60-70
<i>Pinus wallichiana</i> (Himalayan pine)	50-60
<i>Pistacia chinensis</i> (Chinese pistache)	60-70

**Table 1. Species ratings (continued)**

Species (common name)	Rating %
<i>Platanus xacerifolia</i> (London planetree)	70-80
<i>Platanus occidentalis</i> (eastern sycamore)	70-80
<i>Platyclusus orientalis</i> (Oriental arborvitae)	50-60
<i>Populus alba</i> (white poplar)	30-40
<i>Populus deltoides</i> (cottonwood)	30-40
<i>Populus nigra</i> 'Italica' (Lombardy poplar)	10-20
<i>Prunus americana</i> (wild plum)	30-40
<i>Prunus armeniaca</i> (apricot)	30-40
<i>Prunus besseyi</i> (sand cherry)	40-50
<i>Prunus</i> x 'Hally Jolivette' (Hally Jolivette cherry)	60-70
<i>Prunus cerasifera</i> (purpleleaf plum)	30-40
<i>Prunus sargentii</i> (Sargent cherry)	60-70
<i>Prunus serotina</i> (black cherry)	30-40
<i>Prunus serrulata</i> (Japanese flowering cherry)	60-70
<i>Prunus subhirtella</i> (Japanese weeping cherry)	60-70
<i>Prunus virginiana</i> (chokecherry)	60-70
<i>Prunus yedoensis</i> (Yoshino cherry)	60-70
<i>Pseudolarix kaempferi</i> (golden larch)	70-80
<i>Pseudotsuga menziesii</i> (Douglas fir)	60-70
<i>Pyrus calleryana</i> (Callery pear)	10-20
<i>Quercus acutissima</i> (sawtooth oak)	80-90
<i>Quercus alba</i> (white oak)	90-100
<i>Quercus bicolor</i> (swamp white oak)	90-100
<i>Quercus cerris</i> (turkey oak)	70-80
<i>Quercus coccinea</i> (scarlet oak)	80-90
<i>Quercus falcata</i> (southern red oak)	80-90
<i>Quercus imbricaria</i> (shingle oak)	80-90
<i>Quercus laurifolia</i> (laurel oak)	80-90
<i>Quercus lyrata</i> (overcup oak)	80-90
<i>Quercus macrocarpa</i> (bur oak)	90-100
<i>Quercus marilandica</i> (blackjack oak)	60-70
<i>Quercus muehlenbergii</i> (chinkapin oak)	80-90
<i>Quercus nigra</i> (water oak)	50-60
<i>Quercus pagodifolia</i> (cherrybark oak)	80-90
<i>Quercus palustris</i> (pin oak)	60-70
<i>Quercus phellos</i> (willow oak)	80-90
<i>Quercus prinus</i> (chestnut oak)	80-90
<i>Quercus robur</i> (English oak)	70-80
<i>Quercus rubra</i> (red oak)	80-90
<i>Quercus shumardii</i> (Shumard oak)	80-90
<i>Quercus stellata</i> (post oak)	60-70
<i>Quercus velutina</i> (black oak)	80-90
<i>Rhus copallina</i> (wing sumac)	60-70
<i>Rhus glabra</i> (smooth sumac, flame-leaf s., shining s.)	60-70
<i>Rhus typhina</i> (staghorn sumac)	60-70

**Table 1. Species ratings (continued)**

Species (common name)	Rating %
<i>Robinia pseudoacacia</i> (black locust)	20-30
<i>Salix xalba</i> 'Tristis' (weeping willow)	40-50
<i>Salix matsudana</i> (Hankow willow)	30-40
<i>Salix nigra</i> (black willow)	20-30
<i>Sassafras albidum</i> (sassafras)	60-70
<i>Sorbus alnifolia</i> (Korean mountainash)	60-70
<i>Sorbus aucuparia</i> (European mountainash)	10-20
<i>Styphnolobium japonicum</i> (Japanese pagodatree)	70-80
<i>Stewartia pseudocamellia</i> (Japanese stewartia)	50-60
<i>Styrax japonicus</i> (Japanese snowbell)	50-60
<i>Syringa pekinensis</i> (Peking lilac)	70-80
<i>Syringa reticulata</i> (Japanese tree lilac)	70-80
<i>Taxodium ascendens</i> (pondcypress)	80-90
<i>Taxodium distichum</i> (baldcypress)	80-90
<i>Taxus baccata</i> (English yew)	60-70
<i>Taxus cuspidata</i> (Japanese yew)	60-70
<i>Tetradium daniellii</i> (Korean evodia)	60-70
<i>Thuja occidentalis</i> (American arborvitae)	50-60
<i>Thuja plicata</i> (western arborvitae)	80-90
<i>Tilia americana</i> (American linden, basswood)	60-70
<i>Tilia cordata</i> (European littleleaf linden)	80-90
<i>Tilia xeuchlora</i> (Crimean linden)	80-90
<i>Tilia heterophylla</i> (white linden)	60-70
<i>Tilia mongolica</i> (Mongolian linden)	60-70
<i>Tilia petiolaris</i> (pendent silver linden)	60-70
<i>Tilia platyphyllos</i> (largeleaf linden)	60-70
<i>Tilia tomentosa</i> (silver linden)	80-90
<i>Tsuga canadensis</i> (Canadian hemlock, untreated for adelgid)	20-30
<i>Tsuga canadensis</i> (Canadian hemlock, treated for adelgid)	70-80
<i>Tsuga caroliniana</i> (Carolina hemlock, untreated for adelgid)	20-30
<i>Tsuga caroliniana</i> (Carolina hemlock, treated for adelgid)	60-70
<i>Ulmus alata</i> (winged elm)	50-60
<i>Ulmus americana</i> (American elm, disease resistant hybrid)	60-70
<i>Ulmus carpinifolia</i> (smoothleaf elm)	50-60
<i>Ulmus glabra</i> (scotch elm)	50-60
<i>Ulmus parvifolia</i> (Chinese elm, lacebark elm)	70-80
<i>Ulmus procera</i> (English elm)	60-70
<i>Ulmus pumila</i> (Siberian elm)	10-20
<i>Ulmus rubra</i> (slippery elm)	60-70
<i>Viburnum prunifolium</i> (blackhaw)	70-80
<i>Viburnum rufidulum</i> (southern blackhaw)	70-80
<i>Zelkova serrata</i> (Japanese zelkova)	90-100
<i>Ziziphus jujuba</i> (common jujube, Chinese date)	60-70

**Note:** Approved by Kentucky Arborists' Association (Kentucky Chapter, International Society of Arboriculture) 18 July 2017

**Table 2. Species valuation**

<b>10-20% Species Valuation</b>	
<i>Abies balsamea</i> (balsam fir)	<i>Fraxinus pennsylvanica</i> (green ash, untreated for EAB)
<i>Ailanthus altissima</i> (tree of heaven)	<i>Lonicera maackii</i> (Amur bush honeysuckle)
<i>Albizia julibrissin</i> (mimosa)	<i>Lonicera tatarica</i> (Tatarian bush honeysuckle)
<i>Caragana arborescens</i> (Siberian peashrub)	<i>Morus alba</i> (white mulberry, female)
<i>xCupressocyparis leylandii</i> (Leyland cypress)	<i>Populus nigra</i> 'Italica' (Lombardy poplar)
<i>Elaeagnus angustifolia</i> (Russian olive)	<i>Pyrus calleryana</i> (Callery pear)
<i>Fraxinus americana</i> (white ash, untreated for EAB)	<i>Sorbus aucuparia</i> (European mountainash)
<i>Fraxinus excelsior</i> (European ash, untreated for EAB)	<i>Ulmus pumila</i> (Siberian elm)
<i>Fraxinus nigra</i> (black ash, untreated for EAB)	
<b>20-30% Species Valuation</b>	
<i>Abies fraseri</i> (Fraseri fir)	<i>Fraxinus quadrangulata</i> (blue ash, untreated for EAB)
<i>Acer negundo</i> (boxelder)	<i>Gleditsia aquatica</i> (water locust)
<i>Acer pensylvanicum</i> (striped maple)	<i>Gleditsia triacanthos</i> (thorny honeylocust)
<i>Acer spicata</i> (mountain maple)	<i>Hibiscus syriacus</i> (rose of Sharon, non-cultivar)
<i>Acer tegmentosum</i> (Manchustriped maple)	<i>Laburnum watereri</i> (golden chaintree)
<i>Betula papyrifera</i> (paper birch)	<i>Lagerstroemia indica</i> (common crapemyrtle)
<i>Betula pendula</i> (European white birch)	<i>Morus rubra</i> (red mulberry)
<i>Euonymus alata</i> (burningbush)	<i>Paulownia tomentosa</i> (royal paulownia, princess tree)
<i>Euonymus bungeana</i> (winterberry euonymus)	<i>Robinia pseudoacacia</i> (black locust)
<i>Euonymus europaea</i> (European spindle tree)	<i>Salix nigra</i> (black willow)
<i>Fraxinus excelsior</i> (European ash, treated for EAB)	<i>Tsuga canadensis</i> (Canadian hemlock, untreated for adelgid)
<i>Fraxinus nigra</i> (black ash, treated for EAB)	<i>Tsuga caroliniana</i> (Carolina hemlock, untreated for adelgid)
<b>30-40% Species Valuation</b>	
<i>Abies procera</i> (noble fir)	<i>Morus alba</i> (white mulberry, male)
<i>Acer diabolicum</i> (devil's maple)	<i>Pinus nigra</i> (Austrian pine)
<i>Acer platanoides</i> (Norway maple)	<i>Populus alba</i> (white poplar)
<i>Acer pseudoplatanus</i> (sycamore maple)	<i>Populus deltoides</i> (cottonwood)
<i>Betula platyphylla</i> (Japanese white birch)	<i>Prunus americana</i> (wild plum)
<i>Cedrus libani deodara</i> (deodar cedar)	<i>Prunus armeniaca</i> (apricot)
<i>Chamaecyparis lawsoniana</i> (Lawson falsecypress)	<i>Prunus cerasifera</i> (purpleleaf plum)
<i>Juniperus communis</i> (common juniper)	<i>Prunus serotina</i> (black cherry)
<i>Juniperus scopulorum</i> (Rocky Mountain juniper)	<i>Salix matsudana</i> (Hankow willow)
<i>Lagerstroemia fauriei</i> (Japanese crapemyrtle)	
<b>40-50% Species Valuation</b>	
<i>Alnus glutinosa</i> (European black alder)	<i>Larix laricina</i> (American larch)
<i>Carya aquatica</i> (water hickory, bitter pecan)	<i>Pinus banksiana</i> (jack pine)
<i>Carya pallida</i> (sand hickory)	<i>Pinus peuce</i> (Macedonian pine)
<i>Castanea dentata</i> (American chestnut, blight resistant hybrids)	<i>Pinus ponderosa</i> (ponderosa pine)
<i>Castanea mollissima</i> (Chinese chestnut)	<i>Pinus rigida</i> (pitch pine)
<i>Corylus maxima</i> (giant filbert)	<i>Pinus sylvestris</i> (Scots pine, scotch pine)
<i>Franklinia alatamaha</i> (Franklin tree)	<i>Pinus thunbergii</i> (Japanese black pine)
<i>Fraxinus pennsylvanica</i> (green ash, treated for EAB)	<i>Prunus besseyi</i> (sand cherry)
<i>Ginkgo biloba</i> (ginkgo, female)	<i>Salix xalba</i> 'Tristis' (weeping willow)

**Table 2. Species valuation (continued)**

<b>50-60% Species Valuation</b>	
<i>Acer tataricum</i> (Tatarian maple)	<i>Juglans regia</i> (English walnut)
<i>Betula maximowicziana</i> (monarch birch)	<i>Picea rubens</i> (red spruce)
<i>Betula populifolia</i> (gray birch)	<i>Pinus echinata</i> (shortleaf pine)
<i>Carya glabra</i> (pignut)	<i>Pinus mugo</i> (Swiss mountain pine)
<i>Chamaecyparis nootkatensis</i> (Alaska cedar)	<i>Pinus resinosa</i> (red pine)
<i>Chamaecyparis obtusa</i> (hinoki falsecypress)	<i>Pinus taeda</i> (loblolly pine)
<i>Chamaecyparis pisifera</i> (sawara falsecypress)	<i>Pinus wallichiana</i> (Himalayan pine)
<i>Corylus americana</i> (American filbert)	<i>Platycladus orientalis</i> (Oriental arborvitae)
<i>Corylus avellana</i> 'Contorta' (contorted filbert, Harry Lauder's walking stick)	<i>Quercus nigra</i> (water oak)
<i>Cotinus coggygria</i> (smoketree)	<i>Stewartia pseudocamellia</i> (Japanese stewartia)
<i>Crataegus crus-galli</i> (cockspur hawthorn)	<i>Styrax japonicus</i> (Japanese snowbell)
<i>Heptacodium miconioides</i> (seven-son flower)	<i>Thuja occidentalis</i> (American arborvitae)
<i>Ilex pedunculosa</i> (longstalk holly)	<i>Ulmus alata</i> (winged elm)
<i>Ilex serrata</i> (Japanese winterberry)	<i>Ulmus carpinifolia</i> (smoothleaf elm)
<i>Juglans cinerea</i> (butternut)	<i>Ulmus glabra</i> (scotch elm)
<i>Juglans nigra</i> (black walnut)	
<b>60-70% Species Valuation</b>	
<i>Abies concolor</i> (white fir)	<i>Larix kaempferi</i> (Japanese larch)
<i>Abies nordmanniana</i> (Nordmann fir)	<i>Maclura pomifera</i> (Osage orange, female or unnamed selection)
<i>Acer japonicum</i> (fullmoon maple)	<i>Magnolia fraseri</i> (Fraser magnolia)
<i>Acer maximowiczianum</i> (nikko maple)	<i>Magnolia grandiflora</i> (southern magnolia, outside western KY)
<i>Acer palmatum</i> (Japanese maple)	<i>Magnolia macrophylla</i> (bigleaf magnolia)
<i>Acer rubrum</i> (red maple, seedling forms)	<i>Magnolia tripetala</i> (umbrella magnolia)
<i>Acer saccharinum</i> (silver maple, water maple)	<i>Malus</i> sp. (crabapple, unnamed seedling)
<i>Acer tataricum ginnala</i> (Amur maple)	<i>Malus pumila</i> (apple)
<i>Aesculus xcarnea</i> (red horsechestnut)	<i>Oxydendrum arboreum</i> (sourwood)
<i>Aesculus flava</i> (yellow buckeye)	<i>Picea engelmannii</i> (Engelmann spruce)
<i>Aesculus glabra</i> (Ohio buckeye)	<i>Picea glauca</i> (white spruce)
<i>Aesculus hippocastanum</i> (common horsechestnut)	<i>Pinus strobus</i> (eastern white pine)
<i>Aesculus pavia</i> (red buckeye)	<i>Pinus virginiana</i> (Virginia pine)
<i>Amelanchier arborea</i> (downy serviceberry)	<i>Pistacia chinensis</i> (Chinese pistache)
<i>Amelanchier canadensis</i> (common serviceberry)	<i>Prunus</i> x 'Hally Jolivette' (Hally Jolivette cherry)
<i>Aralia elata</i> (Japanese angelica)	<i>Prunus sargentii</i> (Sargent cherry)
<i>Aralia spinosa</i> (devil's walkingstick)	<i>Prunus serrulata</i> (Japanese flowering cherry)
<i>Betula lenta</i> (sweet birch)	<i>Prunus subhirtella</i> (Japanese weeping cherry)
<i>Betula lutea</i> (yellow birch)	<i>Prunus virginiana</i> (chokecherry)
<i>Carya cordiformis</i> (bitternut, pignut)	<i>Prunus yedoensis</i> (Yoshino cherry)
<i>Carya illinoensis</i> (pecan)	<i>Pseudotsuga menziesii</i> (Douglas fir)
<i>Carya tomentosa</i> (mockernut hickory)	<i>Quercus marilandica</i> (blackjack oak)
<i>Catalpa bignonioides</i> (common catalpa)	<i>Quercus palustris</i> (pin oak)
<i>Catalpa speciosa</i> (northern catalpa)	<i>Quercus stellata</i> (post oak)
<i>Cedrus libani atlantica</i> (Atlas cedar)	<i>Rhus copallina</i> (winged sumac, flame-leaf s., shining s.)
<i>Celtis occidentalis</i> (common hackberry)	<i>Rhus glabra</i> (smooth sumac)
<i>Cercis canadensis</i> (eastern redbud)	<i>Rhus typhina</i> (staghorn sumac)
<i>Cornus alternifolia</i> (pagoda dogwood)	<i>Sassafras albidum</i> (sassafras)
<i>Cornus amomum</i> (silky dogwood)	<i>Sorbus alnifolia</i> (Korean mountainash)
<i>Cornus florida</i> (flowering dogwood)	<i>Taxus baccata</i> (English yew)
<i>Cornus kousa</i> (kousa dogwood)	<i>Taxus cuspidata</i> (Japanese yew)
<i>Cornus racemosa</i> (gray dogwood)	<i>Tetradium daniellii</i> (Korean evodia)
<i>Cotinus obovatus</i> (American smoketree)	<i>Tilia americana</i> (American linden, basswood)
<i>Crataegus lavalleyi</i> (lavalley hawthorn)	<i>Tilia heterophylla</i> (white linden)
<i>Crataegus phaenopyrum</i> (Washington hawthorn)	<i>Tilia mongolica</i> (Mongolian linden)
<i>Crataegus viridis</i> 'Winter King' (winter king hawthorn)	<i>Tilia petiolaris</i> (pendent silver linden)
<i>Diospyros virginiana</i> (persimmon)	<i>Tilia platyphyllos</i> (largeleaf linden)
<i>Fraxinus americana</i> (white ash, treated for EAB)	<i>Tsuga caroliniana</i> (Carolina hemlock, treated for adelgid)
<i>Fraxinus quadrangulata</i> (blue ash, treated for EAB)	<i>Ulmus americana</i> (American elm, disease resistant hybrids)
<i>Gleditsia triacanthos inermis</i> (thornless honeylocust)	<i>Ulmus procera</i> (English elm)
<i>Hibiscus syriacus</i> (rose of Sharon, named cultivars)	<i>Ulmus rubra</i> (slippery elm)
<i>Larix decidua</i> (European larch)	<i>Ziziphus jujuba</i> (common jujube, Chinese date)

**Table 2. Species valuation (continued)**

<b>70-80% Species Valuation</b>	
<i>Abies cilicica</i> (Cilician fir)	<i>Magnolia acuminata</i> (cucumber magnolia)
<i>Acer buergerianum</i> (trident maple)	<i>Magnolia grandiflora</i> (southern magnolia, in western KY)
<i>Acer griseum</i> x <i>maximowicziana</i> (Girard maple)	<i>Magnolia heptapeta</i> (Yulan magnolia)
<i>Acer rubrum</i> (red maple, improved cultivars )	<i>Magnolia liliiflora</i> (lily magnolia)
<i>Acer saccharum</i> (sugar maple)	<i>Magnolia xsoulangiana</i> (saucer magnolia)
<i>Acer saccharum nigrum</i> (black maple)	<i>Magnolia stellata</i> (star magnolia)
<i>Amelanchier xgrandiflora</i> (apple serviceberry)	<i>Malus</i> sp. (crabapple, improved cultivars)
<i>Amelanchier laevis</i> (Allegheny serviceberry)	<i>Ostrya carpinifolia</i> (European hophornbeam)
<i>Asimina triloba</i> (pawpaw)	<i>Parrotia persica</i> (Persian parrotia)
<i>Betula nigra</i> (river birch)	<i>Phellodendron amurense</i> (Amur corktree)
<i>Carpinus betulus</i> (European hornbeam)	<i>Picea omorika</i> (Serbian spruce)
<i>Carpinus caroliniana</i> (American hornbeam)	<i>Picea pungens</i> (Colorado spruce)
<i>Carpinus cordata</i> (heartleaf hornbeam)	<i>Picea pungens</i> var. <i>glauca</i> (blue Colorado spruce)
<i>Carpinus japonica</i> (Japanese hornbeam)	<i>Pinus cembra</i> (Swiss stone pine)
<i>Carya laciniata</i> (shellbark hickory)	<i>Pinus densiflora</i> (Japanese red pine)
<i>Carya ovata</i> (shagbark hickory)	<i>Pinus flexilis</i> (limber pine)
<i>Cedrus libani stenocoma</i> (hardy cedar of Lebanon)	<i>Pinus koraiensis</i> (Korean pine)
<i>Celtis laevigata</i> (sugar hackberry)	<i>Pinus parviflora</i> (Japanese white pine)
<i>Chionanthus retusus</i> (Chinese fringetree)	<i>Platanus xacerifolia</i> (London planetree)
<i>Chionanthus virginicus</i> (white fringetree)	<i>Platanus occidentalis</i> (eastern sycamore)
<i>Cladrastis kentukea</i> (Kentucky yellowwood)	<i>Pseudolarix kaempferi</i> (golden larch)
<i>Corylus colurna</i> (Turkish filbert)	<i>Quercus cerris</i> (turkey oak)
<i>Halesia tetraptera</i> (silverbell)	<i>Quercus robur</i> (English oak)
<i>Hamamelis mollis</i> (Chinese witchhazel)	<i>Styphnolobium japonicum</i> (Japanese pagodatree)
<i>Hamamelis virginiana</i> (common witchhazel)	<i>Syringa pekinensis</i> (Peking lilac)
<i>Hydrangea paniculata</i> (peegee hydrangea)	<i>Syringa reticulata</i> (Japanese tree lilac)
<i>Ilex opaca</i> (American holly)	<i>Tsuga canadensis</i> (Canadian hemlock, treated for adelgid)
<i>Koelreuteria paniculata</i> (golden raintree)	<i>Ulmus parvifolia</i> (Chinese elm, lacebark elm)
<i>Liquidambar styraciflua</i> (sweetgum)	<i>Viburnum prunifolium</i> (blackhaw)
<i>Liriodendron tulipifera</i> (tulip poplar)	<i>Viburnum rufidulum</i> (southern blackhaw)
<i>Magnolia</i> sp. (magnolia, named cultivar or hybrid)	
<b>80-90% Species Valuation</b>	
<i>Acer campestre</i> (hedge maple)	<i>Picea abies</i> (Norway spruce)
<i>Acer griseum</i> (paperbark maple)	<i>Picea orientalis</i> (Oriental spruce)
<i>Acer miyabei</i> (miyabe maple)	<i>Pinus bungeana</i> (lacebark pine)
<i>Acer truncatum</i> (shantung maple)	<i>Quercus acutissima</i> (sawtooth oak)
<i>Aesculus parviflora</i> (bottlebrush buckeye)	<i>Quercus coccinea</i> (scarlet oak)
<i>Cercidiphyllum japonicum</i> (katsuratree)	<i>Quercus falcata</i> (southern red oak)
<i>Cornus mas</i> (cornelian cherry dogwood)	<i>Quercus imbricaria</i> (shingle oak)
<i>Cornus officinalis</i> (Japanese cornelian cherry dogwood)	<i>Quercus laurifolia</i> (laurel oak)
<i>Eucommia ulmoides</i> (hardy rubber tree)	<i>Quercus lyrata</i> (overcup oak)
<i>Fagus grandifolia</i> (American beech)	<i>Quercus muehlenbergii</i> (chinkapin oak)
<i>Fagus sylvatica</i> (European beech)	<i>Quercus pagodifolia</i> (cherrybark oak)
<i>Gymnocladus dioica</i> (Kentucky coffeetree, female)	<i>Quercus phellos</i> (willow oak)
<i>Ilex decidua</i> (possumhaw)	<i>Quercus prinus</i> (chestnut oak)
<i>Juniperus chinensis</i> (Chinese juniper)	<i>Quercus rubra</i> (red oak)
<i>Juniperus virginiana</i> (eastern redcedar)	<i>Quercus shumardii</i> (Shumard oak)
<i>Maackia amurensis</i> (Amur maackia)	<i>Quercus velutina</i> (black oak)
<i>Magnolia xloebneri</i> (Loebner magnolia)	<i>Taxodium ascendens</i> (pondcypress)
<i>Magnolia virginiana</i> (sweetbay magnolia)	<i>Taxodium distichum</i> (baldcypress)
<i>Magnolia virginiana australis</i> (sweetbay magnolia, southern form)	<i>Thuja plicata</i> (western arborvitae)
<i>Metasequoia glyptostroboides</i> (dawn redwood)	<i>Tilia cordata</i> (European littleleaf linden)
<i>Nyssa aquatica</i> (water blackgum)	<i>Tilia xeuchlora</i> (Crimean linden)
<i>Ostrya virginiana</i> (hophornbeam)	<i>Tilia tomentosa</i> (silver linden)

**Table 2. Species valuation** (continued)

<b>90-100% Species Valuation</b>	
<i>Ginkgo biloba</i> (ginkgo, male)	<i>Quercus alba</i> (white oak)
<i>Gymnocladus dioica</i> (Kentucky coffeetree, male cultivars)	<i>Quercus bicolor</i> (swamp white oak)
<i>Maclura pomifera</i> (Osage orange, male cultivars)	<i>Quercus macrocarpa</i> (bur oak)
<i>Nyssa sylvatica</i> (blackgum)	<i>Zelkova serrata</i> (Japanese zelkova)

**Note:** Approved by Kentucky Arborists' Association (Kentucky Chapter, International Society of Arboriculture) 18 July 2017

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