

Guide to the Rating of Tree Species in Kentucky
(Alphabetical by Botanical Name) ⁽¹⁾
Kentucky Regional Plant Appraisal Committee

Species (USDA Zone) (common name) USFS spp. code	% Rating	Size⁽²⁾:		Traits:					
		High (feet)	Wide (feet)	Growth Rate ⁽³⁾ (S, M, F)	Lifespan ⁽⁴⁾ (S, M, L)	Invasive or weedy ⁽⁵⁾ (N, M, S)	Litter ⁽⁶⁾ (N, M, S) (L, Fl, Fr, T)	Pavement Displacement ⁽⁷⁾ (N, M, S)	Biotic &/or Abiotic Problems ⁽⁸⁾ (N, A, M, E)
<i>Abies balsamea</i> (3-5) (balsam fir) ABBA	10-20	45	20	S	S	N	N	N	M (root rot, stem cankers, environmental)
<i>Abies cilicica</i> (5-7) (Cilician fir) AB	70-80	60	30	S	S-M	N	N	N	M (root rot, stem cankers, environmental)
<i>Abies concolor</i> (4-7) (white fir) ABCO	60-70	40	20	S-M	M	N	N	N	M (environmental)
<i>Abies fraseri</i> (4-7) (Fraser fir) ABFR	20-30	40	20	S	S	N	N	N	M (root rot, stem cankers, environmental)
<i>Abies nordmanniana</i> (4-6) (Nordmann fir) ABNO	60-70	50	20	S-M	M	N	N	N	N
<i>Abies procera</i> (5-6) (noble fir) ABPR	30-40	50	20	S	S	N	N	N	M (root rot, stem cankers, environmental)
<i>Acer buergerianum</i> (5-8) (trident maple) ACBU	70-80	35	35	M	M	N	N	N	N

<i>Acer campestre</i> (5-8) (hedge maple) ACCA	80-90	25	25	M	L-M	N-M	N	N	N
<i>Acer diabolicum</i> (5-7) (devil's maple) AC	60-70 Changed from 30-40	20	20	M	M	N	N	N	N
<i>Acer griseum</i> (5-7) (paperbark maple) ACGR	80-90	20	15	S	M	N	N	N	N
<i>Acer griseum</i> x <i>maximowicziana</i> (5-7) (Girard maple) AC	70-80	20	15	S	M	N	N	N	N
<i>Acer japonicum</i> (5-7) (fullmoon maple) ACJA2	40-50 Changed from 60-70	20	20	S-M	S	N	N	N	A, M (environmental)
<i>Acer maximowiczianum</i> (5-7) (nikko maple) AC	60-70	20	20	M	M	N	N	N	N
<i>Acer miyabei</i> (4-8) (miyabe maple) AC	80-90	30	25	M	M	N	N	N	N
<i>Acer negundo</i> (3-9) (boxelder) ACNE	20-30	30	20	F	M	M-S	M (L,Fr,T)	S	A
<i>Acer palmatum</i> (6-8) (Japanese maple) ACPA	60-70	20	20	S	S	N	N	N	A, M (environmental)
<i>Acer pensylvanicum</i> (3-7) (striped maple)	20-30	20	15	M	S	N	N	N	M (environmental)

ACPE									
<i>Acer platanoides</i> (4-7) (Norway maple) ACPL	30-40	40	30	F	S	M	M (L,Fr)	S	E (verticillium, sunscald)
<i>Acer pseudoplatanus</i> (4-7) (sycamore maple) ACPS	30-40	40	30	M	M	M	M (L,Fr)	S	M (verticillium)
<i>Acer rubrum</i> (3-9) (red maple, seedling forms) ACRU	60-70	40	30	F	M	M	M (Fr)	S	N, M (pH, girdling roots, environmental, verticillium)
<i>Acer rubrum</i> (3-9) (red maple, improved cultivars) ACRU	70-80 lower?	40	30	F	M	M	M (Fr)	S	N, M (pH, girdling roots, environmental, verticillium)
<i>Acer saccharinum</i> (3-9) (silver maple, water maple) ACSA1	60-70	50	35	F	M	M	M (L,Fr,T)	S	N, M
<i>Acer saccharum</i> (4-8) (sugar maple) ACSA2	70-80	60	40	M	L	M	M (Fr)	S	N (environmental, girdling roots, verticillium)
<i>Acer saccharum nigrum</i> (4-8) (black maple) ACNI	70-80	60	40	M	L	M	M (Fr)	S	N
<i>Acer spicatum</i> (3-7) (mountain maple) ACSP	20-30	15	15	M	S	N	N	N	M (environmental)
<i>Acer tegmentosum</i> (4-7) (Manchustriped maple) AC	20-30	20	20	M	S	N	N	N	M (environmental)
<i>Acer tataricum</i> (3-8) (Tatarian maple) ACTA	50-60	18	15	F	S	M-S	N	N	N

<i>Acer tataricum ginnala</i> (3-8) (Amur maple) ACGI	60-70	18	15	F	S	M-S	N	N	N
<i>Acer truncatum</i> (4-8) (shantung maple) ACTR	80-90	30	30	S-M	S-M	N	N	N	N
<i>Aesculus xcarnea</i> (5-7) (red horsechestnut) AE	60-70	30	30	M	M	N	M (Fr)	M	A (powdery mildew, leaf scorch)
<i>Aesculus flava</i> (4-8) (yellow buckeye) AEFL	60-70	60	60	M	M	N	M (Fr,T)	M	A (leaf scorch)
<i>Aesculus glabra</i> (3-7) (Ohio buckeye) AEGL	60-70	50	30	M	M	N	M (L,Fr,T)	M	A (powdery mildew, leaf scorch)
<i>Aesculus hippocastanum</i> (4-7) (common horsechestnut) AEHI	60-70	50	40	M	M	N	M (L,Fr,T)	M	A (powdery mildew, leaf scorch)
<i>Aesculus parviflora</i> (4-8) (bottlebrush buckeye) AEPA2	80-90	10	12	M	M	N	N	N	N
<i>Aesculus pavia</i> (4-8) (red buckeye) AEPA	60-70	18	15	S-M	M	N	N	N	A (powdery mildew, leaf scorch)
<i>Ailanthus altissima</i> (4-8) (tree of heaven) AIAL	10-20	40	30	F	M	S	M (Fr,T)	S	N
<i>Albizia julibrissin</i> (6-9) (mimosa) ALJU	10-20	20	20	F	S	S	M (Fl,Fr,T)	N	M (environmental, fusarium)
<i>Alnus glutinosa</i> (4-7) (European black alder)	40-50	40	20	F	M	S (wet areas)	M (L,Fr)	M	A (adelgid)

ALGL									
<i>Amelanchier arborea</i> (4-9) (downy serviceberry) AMAR	60-70	15	10	F	M	N	N	N	N, A (Japanese beetle)
<i>Amelanchier canadensis</i> (3-7) (common serviceberry) AMCA	60-70	12	10	F	M	N	N	N	N, A (Japanese beetle)
<i>Amelanchier xgrandiflora</i> (4-9) (apple serviceberry) AM	70-80	15	10	F	M	N	N	N	N, A (Japanese beetle)
<i>Amelanchier laevis</i> (4-8) (Allegheny serviceberry) AMLA	70-80	15	10	F	M	N	N	N	N, A (Japanese beetle)
<i>Aralia elata</i> (4-9) (Japanese angelica) AREL8	60-70	20	15	F	S	N-M (suckers)	M (Fr)	N	N
<i>Aralia spinosa</i> (4-9) (devil's walkingstick) ARSP	60-70	15	10	F	S	M	M (Fr)	N	N
<i>Asimina triloba</i> (5-8) (pawpaw) ASTR	70-80	15	15	M	S	N-M (suckers)	M (Fr)	N	N
<i>Betula lenta</i> (3-7) (sweet birch, black birch) BELE	60-70	40	35	M-F	S	N	N	N	M (environmental)
<i>Betula lutea</i> (3-7) (yellow birch) BEAL	60-70	60	35	M-F	S	N	N	N	M (environmental)
<i>Betula maximowicziana</i> (5-6) (monarch birch) BE	40-50 Changed from 50-60	45	30	F	S	N	N	N	M (borer, environmental)

<i>Betula nigra</i> (3-9) (river birch) BENI	60-70	40	30	F	M	N	M (L,T)	M	A (aphids, pH, leaf spot)
<i>Betula papyrifera</i> (2-6) (paper birch) BEPA	20-30	25	18	F	S	N	N	N	E (borer, environmental)
<i>Betula pendula</i> (2-6) (European white birch) BEPE	20-30	25	18	F	S	N	N	N	E (borer, environmental)
<i>Betula platyphylla</i> (5-6) (Japanese white birch) BEPL2	30-40	30	20	F	S	N	N	N	M (borer, environmental)
<i>Betula populifolia</i> (3-6) (gray birch) BEPO	30-40 Changed from 50-60	30	15	F	S	N	N	N	M (borer, environmental)
<i>Caragana arborescens</i> (2-6) (Siberian peashrub) CAAR	10-20	15	12	S	S	N	N	N	E (environmental)
<i>Carpinus betulus</i> (5-7) (European hornbeam) CABE	70-80	40	30	F	S-M	N	N	N	N (borer)
<i>Carpinus caroliniana</i> (3-9) (American hornbeam) CACA	70-80	20	20	M-F	M	N	N	N	N
<i>Carpinus cordata</i> (5-6[7]) (heartleaf hornbeam) CA40	70-80	20	18	F	M	N	N	N	N
<i>Carpinus japonica</i> (5-7) (Japanese hornbeam) CA40	70-80	20	20	F	M	N	N	N	N
<i>Carya aquatica</i> (6-9)	40-50	50	35	S	L	N	N	S	N

(water hickory, bitter pecan) CAAQ									
<i>Carya cordiformis</i> (4-9) (bitternut, pignut) CACO	60-70	50	40	S	L	N	M (Fr)	S	N
<i>Carya glabra</i> (4-9) (pignut) CAGL	50-60	50	25	S	L	N	M (Fr)	S	N
<i>Carya illinoensis</i> (5-9) (pecan) CAIL	60-70	70	40	S-M	L	N	M (L,Fr)	S	A (aphids, sooty mold)
<i>Carya laciniata</i> (5-8) (shellbark hickory) CALA	70-80	60	40	S-M	L	N	M (Fr, Bark)	S	N
<i>Carya ovata</i> (4-8) (shagbark hickory) CAOV	70-80	60	35	S	L	N	M (Fr, Bark)	S	N
<i>Carya pallida</i> (6-9) (sand hickory) CAPA	40-50	60	35	S	L	N	M (Fr)	S	N
<i>Carya tomentosa</i> (4-9) (mockernut hickory) CATO	60-70	50	25	S	L	N	M (Fr)	S	N
<i>Castanea dentata</i> (4-8) (American chestnut; blight resistant hyb.) CADE	40-50	60	25	S	S	N	M-E (Fr)	M	M (phytophthora)
<i>Castanea mollissima</i> (4-8) (Chinese chestnut) CAMO	40-50	40	40	S	M	N	M-E (Fr)	M	N
<i>Catalpa bignonioides</i> (5-9) (common catalpa)	60-70	50	30	F	M	N-M	M (L,Fr)	S	N,E (verticillium)

CABI									
<i>Catalpa speciosa</i> (4-8) (northern catalpa) CASP	60-70	50	30	F	M	N-M	M (L,Fr)	S	N,E (verticillium)
<i>Cedrus libani atlantica</i> (6-9) (Atlas cedar) CEAT	60-70	40	40	M	M	N	N	M	N,M (environmental)
<i>Cedrus libani deodara</i> (7-8) (deodar cedar) CEDE	30-40	40	40	M	M	N	N	M	E (environmental)
<i>Cedrus libani stenocoma</i> (5-7) (hardy cedar of Lebanon) CELI	70-80	40	40	M	M	N	N	M	N,M (environmental)
<i>Celtis laevigata</i> (5-9) (sugar hackberry) CELA	70-80	40	30	M	M	N	M (Fr)	M	N
<i>Celtis occidentalis</i> (3-9) (common hackberry) CEOC	60-70	40	35	M	M	M	M (L,Fr)	S	A (nipple gall)
<i>Cercidiphyllum japonicum</i> (4-8) (katsuratree) CEJA	80-90	40	20	M	M	N	N	N	N
<i>Cercis canadensis</i> (4-9) (eastern redbud) CECA	60-70	20	25	F	S	M	M (Fr)	N	M (borer, canker, verticillium)
<i>Chamaecyparis lawsoniana</i> (5-7) (Lawson falsecypress) CHLA2	30-40	20	12	F	S	N	N	N	E (canker, environmental)
<i>Chamaecyparis nootkatensis</i> (4-7) (Alaska cedar) CHNO	50-60	30	15	M-F	S	N	N	N	A,M (environmental)
<i>Chamaecyparis obtusa</i> (5-8)	50-60	25	7	F	S	N	N	N	A,M

(hinoki falsecypress) CHOB									(environmental)
<i>Chamaecyparis pisifera</i> (4-8) (sawara falsecypress) CAPI	50-60	40	20	F	S	N	N	N	M (environmental)
<i>Chionanthus retusus</i> (6-8) (Chinese fringetree) CHRE	70-80	15	20	M	M	N	N	N	N
<i>Chionanthus virginicus</i> (4-9) (white fringetree) CHVI	70-80	20	25	M	M	N	N	N	M (borer)
<i>Cladrastis kentukea</i> (4-8) (Kentucky yellowwood) CLLU	70-80	30	40	M	M	N	N (T)	N	N
<i>Cornus alternifolia</i> (3-7) (pagoda dogwood) COAL	60-70	15	20	M	S-M	N	N	N	N
<i>Cornus amomum</i> (4-8) (silky dogwood) COAM2	60-70	6	6	M	M	N	N	N	N
<i>Cornus florida</i> (5-9) (flowering dogwood) COFL	60-70	20	20	M	M	N	N	N	M (borer, powdery mildew, leaf/twig anthracnose, environmental)
<i>Cornus kousa</i> (5-8) (kousa dogwood) COKO	60-70	20	20	S-M	M	N	N (Fr)	N	M (environmental)
<i>Cornus mas</i> (4-7) (cornelian cherry dogwood) COMA	80-90	20	15	M	M	N	N	N	N
<i>Cornus officinalis</i> (5-8) (Japanese cornelian cherry)	80-90	20	20	M	M	N	N	N	N

dogwood) CO1									
<i>Cornus racemosa</i> (3-8) (gray dogwood) CORA	60-70	10	10	M	M	N	N	N	N
<i>Corylus americana</i> (4-9) (American filbert) COAM	50-60	10	10	M	M	N	N	N	A (Japanese beetle, canker)
<i>Corylus avellana</i> ‘Contorta’ (4-8) (contorted filbert, Harry Lauder’s walking stick) COAV	50-60	8	8	M	M	N	N	N	A (Japanese beetle, canker, blight)
<i>Corylus colurna</i> (4-7) (Turkish filbert) COCO2	70-80	40	30	M	S-M	N	N	N	A (Japanese beetle)
<i>Corylus maxima</i> (4-8) (giant filbert) COMA2	40-50	15	18	M	M	N	N	N	A (Japanese beetle)
<i>Cotinus coggygria</i> (5-8) (smoketree) COCO1	50-60	15	15	F	S	N	N	N	M, E (verticillium)
<i>Cotinus obovatus</i> (4-8) (American smoketree) COOB	60-70	20	15	F	M	N	N	N	M,E (verticillium)
<i>Crataegus crus-galli</i> (4-6[7]) (cockspur hawthorn) CRCR	50-60	20	20	M	M	N	M (Fr)	N	A (quince rust)
<i>Crataegus xlaalleeii</i> (4-7) (lavalle hawthorn) CR	60-70	15	15	M	M	N	N	N	A (quince rust)
<i>Crataegus phaenopyrum</i> (4-8) (Washington hawthorn)	60-70	25	20	M	M	N	M (Fr)	N	A (quince rust)

CRPH									
<i>Crataegus viridis</i> ‘Winter King’ (4-7) (winter king hawthorn) CRVI	60-70	20	20	M	M	N	M (Fr)	N	A (quince rust)
<i>xCupressocyparis leylandii</i> (6-10) (Leyland cypress) CULE	10-20	20	7	F	S	N	M (L)	N	E (canker)
<i>Diospyros virginiana</i> (4-9) (persimmon) DIVI	60-70	45	30	M	L	N	M (Fr)	M	N
<i>Elaeagnus angustifolia</i> (2-7) (Russian olive) ELAN	10-20	12	15	F	S	S	M (L,T)	N	M (verticillium)
<i>Eucommia ulmoides</i> (5-7) (hardy rubber tree) EUUL	80-90	40	40	M	M	N	N	M	N
<i>Euonymus alatus</i> (4-8) (burning bush) EULA	20-30	15	15	F	M	S	N	N	A (mites)
<i>Euonymus bungeanus</i> (4-7) (winterberry euonymus) EUBU	20-30	20	20	F	M	N	N	N	A (scale)
<i>Euonymus europaeus</i> (4-7) (European spindle tree) EUEU	20-30	12	10	F	M	N	N	N	A (scale)
<i>Fagus grandifolia</i> (4-9) (American beech) FAGR	80-90	50	45	M	L	N	N-M (Fr)	M	N,M (environmental)
<i>Fagus sylvatica</i> (4-7) (European beech) FASY	80-90	50	35	M	L	N	N-M (Fr)	M	N, M (environmental)

<i>Franklinia alataamaha</i> (5-8) (Franklin tree) FRAL	40-50 Suggesti on made to change to 60-70	15	15	M	S	N	N	N	M, E (environmental)
<i>Fraxinus americana</i> (4-9) (white ash, untreated for EAB) FRAM	10-20	50	45	F	S	M	M (Fr,T)	S	E (borer)
<i>Fraxinus americana</i> (4-9) (white ash, treated for EAB) FRAM	60-70	50	45	F	L	M	M (Fr)	S	N
<i>Fraxinus excelsior</i> (5-7) (European ash, untreated for EAB) FR	10-20	30	20	F	S	M	M (Fr,T)	S	E (borer)
<i>Fraxinus excelsior</i> (5-7) (European ash, treated for EAB) FR	20-30	30	20	F	M	M	M (Fr,T)	S	M (borer)
<i>Fraxinus nigra</i> (2-6) (black ash, untreated for EAB) FRNI	10-20	30	20	F	S	M	M (Fr,T)	S	E (borer)
<i>Fraxinus nigra</i> (2-6) (black ash, treated for EAB) FRNI	20-30	30	20	F	M	M	M (Fr)	S	M (borer)
<i>Fraxinus pennsylvanica</i> (3-9) (green ash, untreated for EAB) FRPE	10-20	50	30	F	S	M	M (Fr,T)	S	E (borer)
<i>Fraxinus pennsylvanica</i> (3-9) (green ash, treated for EAB) FRPE	40-50	50	30	F	L	M	M (Fr)	S	N
<i>Fraxinus quadrangulata</i> (4-7) (blue ash, untreated for EAB)	20-30	50	30	F	M	N	M (Fr,T)	S	M (borer)

FRQU									
<i>Fraxinus quadrangulata</i> (4-7) (blue ash, treated for EAB) FRQU	60-70	50	30	F	L	N	M (Fr)	S	N
<i>Ginkgo biloba</i> (4-8) (ginkgo, male) GIBI	90-100	50	30	S-M	L	N	N	M	N
<i>Ginkgo biloba</i> (4-8) (ginkgo, female) GIBI	40-50	50	30	S-M	L	N	M (Fr)	S	N
<i>Gleditsia aquatica</i> (4-9) (water locust) GLAQ	20-30	30	25	F	M	N	M (L,T)	M	M (borer, canker, leaf feeding insects)
<i>Gleditsia triacanthos</i> (4-9) (thorny honeylocust) GLTR	20-30	30	25	F	M	N	M-S (L,Fr,T)	M	M (borer, canker, leaf feeding insects)
<i>Gleditsia triacanthos inermis</i> (4-9) (thornless honeylocust) GLTR	60-70	30	25	F	M	N	M-S (L,Fr,T)	M	M (borer, canker, leaf feeding insects)
<i>Gymnocladus dioica</i> (3-8) (Kentucky coffeetree, female) GYDI	80-90	60	40	M	L	N	M-S (L,Fr)	M	N
<i>Gymnocladus dioica</i> (3-8) (Kentucky coffeetree, male) GYDI	90-100	60	40	M	L	N	M (L)	M	N
<i>Halesia tetraptera</i> (4-8) (silverbell) HATE3	70-80	30	20	S	M	N	N	N	M (scale, environmental)
<i>Hamamelis mollis</i> (5-8) (Chinese witchhazel) HA6	70-80	10	10	M	M	N	N	N	N
<i>Hamamelis virginiana</i> (3-8)	70-80	20	20	M	M	N	N	N	A

(common witchhazel) HAVI									(leaf blight)
<i>Heptacodium miconioides</i> (5-8) (seven-son flower)	50-60	20	15	F	S	N	M (L,Fl,Fr, T,Bark)	N	M (canker)
<i>Hibiscus syriacus</i> (5-8) (rose of Sharon, non-cultivar) HISY	20-30	8	6	F	S	M-S	N	N	N
<i>Hibiscus syriacus</i> (5-8) (rose of Sharon, named cultivars) HISY	60-70	8	6	F	S	N	N	N	N
<i>Hydrangea paniculata</i> (3-8) (peegee hydrangea) HYPA	70-80	10	10	F	S	N	N	N	N
<i>Ilex decidua</i> (5-9) (possumhaw) ILDE	80-90	10	7	M	M	N	N	N	N
<i>Ilex opaca</i> (5-9) (American holly) ILOP	70-80	40	18	M	L	N	N	N	N,A (leaf miner)
<i>Ilex pedunculosa</i> (5-8) (longstalk holly) ILSP	50-60	15	15	S	S	N	N	N	E (verticillium)
<i>Ilex serrata</i> (5-7) (Japanese winterberry) ILSP	50-60	7	7	S	M	N	N	N	M (root rot)
<i>Juglans cinerea</i> (3-7) (butternut) JUCI	50-60	40	30	M	L	N	M (L,Fr)	M	E (canker)
<i>Juglans nigra</i> (4-9) (black walnut) JUNI	50-60	50	50	M	L	N	S (L,Fr)	M	A (fungal leaf spot)

<i>Juglans regia</i> (6-9) (English walnut) JURE	50-60	50	50	M	L	N	M (L,Fr)	M	A (fungal leaf spot)
<i>Juniperus chinensis</i> (4-9) (Chinese juniper) JUCH	80-90	50	15	M	M	N	N	N	M (bagworm)
<i>Juniperus communis</i> (2-6) (common juniper) JUCO1	30-40	8	10	M	M	N	N	N	M (bagworm)
<i>Juniperus scopulorum</i> (3-6) (Rocky Mountain juniper) JUSC	30-40	30	15	M	M	N	N	N	M (bagworm)
<i>Juniperus virginiana</i> (3-9) (eastern redcedar) JUVI	80-90	40	15	F	M	N	N	N	M (bagworm)
<i>Koelreuteria paniculata</i> (5-8) (golden raintree) KOPA	70-80	30	30	F	M	M	M (Fl,Fr,T)	N	N
<i>Laburnum watereri</i> (5-6) (golden chaintree) LAWA	20-30	12	10	S	S	N	N	N	E (environmental)
<i>Lagerstroemia fauriei</i> (6-9) (Japanese crapemyrtle) LA6	30-40 change?	30	15	F	M	N	M (Fl)	N	M (environmental, powdery mildew)
<i>Lagerstroemia indica</i> (7-9) (common crapemyrtle) LAIN	20-30 add 70-80 in west KY	20	10	F	M	N	M (Fl)	N	M (environmental, powdery mildew)
<i>Larix decidua</i> (3-6) (European larch) LADE	60-70	70	25	M	L	N	M (L,Fr)	M	N
<i>Larix kaempferi</i> (4-7)	60-70	80	30	M	M	N	M	M	N

(Japanese larch) LAKA2							(L,Fr)		
<i>Larix laricina</i> (2-5) (American larch) LALA	30-40	50	20	M	M	N	M (L)	M	M (environmental)
<i>Liquidambar styraciflua</i> (5-9) (sweetgum) LIST	70-80	60	40	F	L	M	S (Fr)	S	N
<i>Liriodendron tulipifera</i> (4-9) (tulip poplar) LITU	70-80	70	35	F	L	M	M-S (L,Fr,T)	S	M (aphids, scale, honeydew, verticillium)
<i>Lonicera maackii</i> (3-8) (Amur bush honeysuckle) LOMA6	10-20	12	12	F	M	S	N	N	N
<i>Lonicera tatarica</i> (3-6) (Tatarian bush honeysuckle) LOTA	10-20	10	10	F	M	S	N	N	N
<i>Maackia amurensis</i> (4-7) (Amur maackia)	80-90	20	20	M	M	N	N	N	N
<i>Maclura pomifera</i> (4-9) (Osage orange, male) MAPO	90-100	20	20	M-F	L	N-M	N	S	N
<i>Maclura pomifera</i> (4-9) (Osage orange, female or unnamed selection) MAPO	40-50 changed from 60-70	20	30	F	L	N-M	S (Fr)	S	N
<i>Magnolia</i> sp. (magnolia, named cultivar or hybrid) MA1	70-80	Variable by Cv.	Variable by Cv.	F	M	N	N	N	A, M (environmental, powdery mildew, scale)
<i>Magnolia acuminata</i> (4-8)	70-80	50	50	F	M	N	M	N	N

(cucumber magnolia) MAAC							(L,T)		
<i>Magnolia fraseri</i> (6-9) (Fraser magnolia) MAFR	60-70	15	12	F	S	N	N	N	M (environmental)
<i>Magnolia grandiflora</i> ([6]7-9) (southern magnolia, outside western KY) MAGR	60-70	60	30	F	M	N	M (L,Fr,T)	M	M (environmental, scale)
<i>Magnolia grandiflora</i> ([6]7-9) (southern magnolia, in western KY) MAGR	70-80	60	30	F	M	N	M (L,Fr,T)	M	N (scale)
<i>Magnolia heptapeta</i> (6-9) (Yulan magnolia) MA1	70-80	35	35	F	M	N	N	N	A (environmental)
<i>Magnolia liliiflora</i> (5-8) (lily magnolia) MA1	70-80	10	10	F	M	N	N	N	A (environmental)
<i>Magnolia xloebneri</i> (4-7) (Loebner magnolia) MA1	80-90	20	22	F	M	N	N	N	A (environmental)
<i>Magnolia macrophylla</i> (5-8) (bigleaf magnolia) MAMA	60-70	30	25	F	M	N	M (L)	N	N (environmental)
<i>Magnolia xsoulangiana</i> (4-9) (saucer magnolia) MASO	70-80	20	20	F	M	N	N (Fl)	N	M (environmental, scale)
<i>Magnolia stellata</i> (4-8) (star magnolia) MAST	70-80	15	10	M	M	N	N (Fl)	N	A (environmental)
<i>Magnolia tripetala</i> (5-8)	60-70	15	12	F	M	N	M	N	N

(umbrella magnolia) MATR							(L)		(environmental)
<i>Magnolia virginiana</i> (5-9) (sweetbay magnolia) MAVI	80-90	20	15	F	M	N	M (L,Fr)	N	N
<i>Magnolia virginiana australis</i> (6-9) (sweetbay magnolia, southern form) MAVI	80-90	20	15	F	M	N	M (L,Fr)	N	N
<i>Malus</i> sp. (4-7) (crabapple) MA2	50-60 changed from 60-70	Variable by Cv.	Variable by Cv.	M	M	N	M (L,Fr)	N	A (leaf diseases, Japanese beetle, borer)
<i>Malus</i> sp. (4-7) (crabapple, improved cultivars) MA2	70-80	Variable by Cv.	Variable by Cv.	M	M	N	M (Fr)	N	A (leaf diseases, Japanese beetle, borer)
<i>Malus pumila</i> (4-7) (apple) MAPU	20-30 changed from 60-70	22	22	M	M	N	M (L,Fr)	N	A (leaf diseases, Japanese beetle, borer)
<i>Metasequoia glyptostroboides</i> (5-8) (dawn redwood) MEGL	80-90	70	25	F	L	N	N	M	N,A (Japanese beetle)
<i>Morus alba</i> (5-8) (white mulberry, male) MOAL	30-40	30	30	F	S	N	N	N	N
<i>Morus alba</i> (5-8) (white mulberry, female) MOAL	10-20	30	30	F	S	S	M (Fr)	N	N
<i>Morus rubra</i> (5-9)	20-30	40	40	F	S	S	M	N	N

(red mulberry) MORU							(Fr)		
<i>Nyssa aquatica</i> (6-9) (water blackgum) NYAQ	80-90	30	20	M	L	N	N	M	N
<i>Nyssa sylvatica</i> (4-9) (blackgum) NYSY	90-100	30	20	M	L	N	N	M	N,A (leaf spot)
<i>Ostrya carpinifolia</i> (3-9) (European hophornbeam) OSCA	70-80	25	20	S	L	N	N	N	N
<i>Ostrya virginiana</i> (3-9) (hophornbeam) OSVI	80-90	25	20	S	L	N	N	N	N
<i>Oxydendrum arboreum</i> (5-9) (sourwood) OXAR	60-70	25	20	M	M	N	N	N	N,E (environmental)
<i>Parrotia persica</i> (5-8) (Persian parrotia) PAPE	70-80	20	15	S	M	N	N	N	N
<i>Paulownia tomentosa</i> (6-9) (royal paulownia, princess tree) PATO	20-30	30	30	F	M	S	S (L,Fl,Fr, T)	M	N
<i>Phellodendron amurense</i> (3-7) (Amur cork tree) PHAM	70-80	30	30	S	L	M	M (Fr)	M	N
<i>Picea abies</i> (3-7) (Norway spruce) PIAB	80-90 add 60-70 in west KY	40	25	M	M	N	M (Fr)	M	A,E (needle cast, canker, spider mites, environmental)
<i>Picea engelmannii</i> (3-5) (Engelmann spruce)	60-70	40	12	M	M	N	N	M	M (needle cast,

PIEN									environmental)
<i>Picea glauca</i> (2-6) (white spruce) PIGL	60-70	40	20	M	S	N	N	N	M (needle cast, environmental)
<i>Picea omorika</i> (4-7) (Serbian spruce) PIOM	70-80	50	20	S-M	S-M	N	N	N	A,M (needle cast, environmental)
<i>Picea orientalis</i> (4-7) (oriental spruce) PI1	80-90	50	20	M	M	N	N	N	N
<i>Picea pungens</i> (3-7) (Colorado spruce) PIPU	70-80 20-30 (west Ky)	30	15	S-M	M	N	N	N	A,M (needle cast, canker, spider mites, environmental)
<i>Picea pungens</i> var. <i>glauca</i> (3-7) (blue Colorado spruce) PIPU	70-80 30-40 (west Ky)	30	15	S-M	M	N	N	N	A,M (needle cast, canker, spider mites, environmental)
<i>Picea rubens</i> (3-5) (red spruce) PIRU	50-60	20	8	M	M	N	N	N	M (needle cast, environmental)
<i>Pinus banksiana</i> (2-6) (jack pine) PIBA	40-50	35	30	M	M	N	N	N	M (environmental)
<i>Pinus bungeana</i> (5-7) (lacebark pine) PIBU	80-90	30	20	S-M	M	N	N	N	N
<i>Pinus cembra</i> (3-7) (Swiss stone pine) PICE2	70-80	30	15	S	M	N	N	N	N
<i>Pinus densiflora</i> (3-7) (Japanese red pine)	70-80	25	25	S	S	N	N	N	M (pinewood nematode)

PIDE									
<i>Pinus echinata</i> (6-9) (shortleaf pine) PIEC	50-60	80	50	M	S-M	N	N	M	N (environmental)
<i>Pinus flexilis</i> (4-7) (limber pine) PIFL	70-80	30	15	M	M	N	N	M	N
<i>Pinus koraiensis</i> (4-7) (Korean pine) PI2	70-80	30	20	M	M	N	N	N	N
<i>Pinus mugo</i> (3-7) (Swiss mountain pine) PIMU	50-60	15	25	S	S	N	N	N	M,E (diplodia, scale)
<i>Pinus nigra</i> (3-7) (Austrian pine) PINI	30-40	30	12	M	S	N	N	S	E (diplodia)
<i>Pinus parviflora</i> (4-7) (Japanese white pine) PIPA2	70-80	25	25	M	M	N	N	M	N
<i>Pinus peuce</i> (4-7) (Macedonian pine) PI2	40-50	30	15	M	M	N	N	N	N
<i>Pinus ponderosa</i> (3-6) (ponderosa pine) PIPO	40-50	45	20	M	S	N	N	M	N (environmental)
<i>Pinus resinosa</i> (2-5) (red pine) PIRE	50-60	50	25	M	S-M	N	N	M	M (environmental)
<i>Pinus rigida</i> (4-7) (pitch pine) PIRI	40-50	40	30	S-M	M	N	N	M	N
<i>Pinus strobus</i> (3-7)	60-70	50	20	F	L	N	M	M	N-M

(eastern white pine) PIST	40-50 west KY						(L,Fr)		(environmental)
<i>Pinus sylvestris</i> (3-7) (Scots pine, scotch pine) PISY	40-50	25	25	M	S	N	N	M	E (diplodia)
<i>Pinus taeda</i> (6-9) (loblolly pine) PITA	50-60 70-80 west Ky	50	30	M	M	N	M (L,Fr)	M	N (pinebark beetle, canker)
<i>Pinus thunbergii</i> (6-8) (Japanese black pine) PITH	40-50	25	20	M	S	N	N	M	M (environmental, canker)
<i>Pinus virginiana</i> (4-8) (Virginia pine) PIVI	60-70	15	10	M	M	N	M (Fr)	M	N
<i>Pinus wallichiana</i> (5-7) (Himalayan pine) PI2	50-60	30	15	M	M	N	N	M	N
<i>Pistacia chinensis</i> (6-9) (Chinese pistache) PICH	60-70	30	25	F	M	N	M (Fl,Fr)	N	M (environmental)
<i>Platanus xacerifolia</i> (5-8) (London planetree) PLAC	70-80	70	60	F	L	N	M-S (L,Fr,T, Bark)	S	A (leaf anthracnose)
<i>Platanus occidentalis</i> (4-9) (eastern sycamore) PLOC	70-80	75	75	F	L	N	M-S (L,Fr,T, Bark)	S	A (leaf anthracnose)
<i>Platycladus orientalis</i> (6-11) (Oriental arborvitae) PLOR	50-60	18	10	F	S	N	N	N	A-M (canker, decay, bagworm)
<i>Populus alba</i> (3-8) (white poplar) POAL	30-40	40	40	F	S	S	M (L,T)	S	M (canker, borer, rust)

<i>Populus deltoides</i> (3-9) (eastern cottonwood) PODE	30-40	75	50	F	L	M	M (L,Fr,T)	S	A (canker, rust)
<i>Populus nigra</i> ‘Italica’ (3-9) (Lombardy poplar) PONI	10-20	50	10	F	S	M	M (L,T)	N	E (canker, borer, rust, leafspot)
<i>Prunus americana</i> (3-8) (wild plum) PRAM	30-40	15	15	M	S	N	M (L,Fr)	N	E (Japanese beetle, borer, canker, environmental)
<i>Prunus armeniaca</i> (5-7) (apricot) PRAR	30-40	25	25	M	S	N	M (L,Fr)	N	E (Japanese beetle, borer, canker, environmental)
<i>Prunus besseyi</i> (3-6) (sand cherry) PR	40-50	5	5	F	S	N	N	N	M (Japanese beetle, borer, canker, environmental)
<i>Prunus</i> x ‘Hally Jolivette’ (5-7) (Hally Jolivette cherry) PR	60-70	15	15	M	M	N	N	N	N (Japanese beetle, leafspot)
<i>Prunus cerasifera</i> (5-8) (purpleleaf plum) PRCE	30-40	15	15	F	S	N	M (L,T)	N	E (Japanese beetle, borer, canker, environmental)
<i>Prunus sargentii</i> (4-7) (Sargent cherry) PRSA	60-70	20	20	F	M	N	N	N	A (Japanese beetle, environmental)
<i>Prunus serotina</i> (3-9) (black cherry) PRSE1	30-40	50	40	F	M-L	M-S	M (Fr)	S	N (caterpillar)
<i>Prunus serrulata</i> (5-8) (Japanese flowering cherry) PRSE2	60-70	20	20	M	M	N	N	N	M (Japanese beetle, borer, canker, environmental)
<i>Prunus subhirtella</i> (5-8) (Japanese weeping cherry)	60-70	20	15	F	S	N	N	N	M (Japanese beetle, borer,

PRSU									canker, environmental)
<i>Prunus virginiana</i> (2-6) (chokecherry) PRVI	40-50 (change d from 60-70)	20	18	F	M	N	N	N	M (Japanese beetle, borer, environmental)
<i>Prunus xyedoensis</i> (5-8) (Yoshino cherry) PRYE	60-70	20	20	M	M	N	N	N	M (Japanese beetle, borer, canker, environmental)
<i>Pseudolarix kaempferi</i> (5-7) (golden larch) PS8	70-80	30	20	M	M	N	N-M (L,Fr)	M	M (environmental)
<i>Pseudotsuga menziesii</i> (4-6) (Douglas fir) PSME	60-70 50-60 west Ky	40	15	S-M	M	N	N	M	M (environmental)
<i>Pyrus calleryana</i> (5-8) (Callery pear) PYCA	10-20	30	20	F	S	S	M (FL,Fr)	M-S	N-M (fireblight, canker)
<i>Quercus acutissima</i> (6-9) (sawtooth oak) QUAC	80-90	40	35	M	L	N-M	M (Fr)	S	N
<i>Quercus alba</i> (3-9) (white oak) QUAL	90-100	50	50	M	L	N	M (Fr)	S	N (gall)
<i>Quercus bicolor</i> (4-8) (swamp white oak) QUBI	90-100	50	50	M	L	N	M (Fr)	S	N
<i>Quercus cerris</i> (5-7) (turkey oak) QUCE	70-80	40	40	M	L	N	M (Fr)	S	N
<i>Quercus coccinea</i> (4-9) (scarlet oak) QUCO	80-90	70	40	M	L	N	M (Fr)	S	N

<i>Quercus falcata</i> (7-9) (southern red oak) QUFA	80-90	70	70	M	L	N	M (L,Fr)	S	N (bacterial leaf scorch)
<i>Quercus imbricaria</i> (4-8) (shingle oak) QUIM	80-90	50	50	M	L	N	M (Fr)	S	N (bacterial leaf scorch)
<i>Quercus laurifolia</i> (6-9) (laurel oak) QULA2	80-90	40	30	M	L	N	M (Fr)	S	N
<i>Quercus lyrata</i> (5-9) (overcup oak) QULY	80-90	60	60	M	L	N	M (Fr)	S	N
<i>Quercus macrocarpa</i> (3-8) (bur oak) QUMA1	90-100	70	70	M	L	N	M (L,Fr)	S	N
<i>Quercus marilandica</i> (6-9) (blackjack oak) QUMA2	60-70	30	25	M	L	N	M (Fr)	S	N
<i>Quercus muehlenbergii</i> (5-7) (chinkapin oak) QUMU	80-90	60	60	M	L	N	M (Fr)	S	N
<i>Quercus nigra</i> (6-9) (water oak) QUNI	50-60	50	50	M	M	N	M (Fr,T)	S	N
<i>Quercus pagodifolia</i> (6-9) (cherrybark oak) QUPA2	80-90	70	70	M	L	N	M (L,Fr)	S	N (horned oak gall)
<i>Quercus palustris</i> (4-8) (pin oak) <u>QUPA</u>	60-70	60	60	M-F	L	N	M (L,Fr)	S	M (ganoderma, bacterial leaf scorch, chlorosis, horned oak gall)
<i>Quercus phellos</i> (5-7)	80-90	50	40	M	L	N	M	S	N

(willow oak) QUPH							(L,Fr)		(chlorosis)
<i>Quercus prinus</i> (5-7) (chestnut oak) QUPR	80-90	60	40	M	L	N	M (Fr)	S	N
<i>Quercus robur</i> (4-8) (English oak) QURO	70-80	40	40	M	L	N	M (Fr)	S	A (powdery mildew)
<i>Quercus rubra</i> (3-7) (red oak) QURU	80-90	60	60	M	L	N	M (Fr)	S	N,M (scale, bacterial leaf scorch)
<i>Quercus shumardii</i> (5-9) (Shumard oak) QUSH	80-90	40	40	M	L	N	M (Fr)	S	N
<i>Quercus stellata</i> (5-9) (post oak) QUST	60-70	40	40	M	L	N	M (Fr)	S	N,A
<i>Quercus velutina</i> (3-9) (black oak) QUVE	80-90	50	50	M	L	N	M (Fr)	S	N
<i>Rhus copallina</i> (4-9) (wing sumac) RHCO	60-70	20	20	F	S	M	N	N	N
<i>Rhus glabra</i> (3-9) (smooth sumac, flame-leaf s., shining s.) RHGL	60-70	10	10	F	S	M	N	N	N
<i>Rhus typhina</i> (4-8) (staghorn sumac) RHTY	60-70	20	18	F	S	M-S (suckers)	N	N	N
<i>Robinia pseudoacacia</i> (4-8) (black locust)	20-30	40	30	F	M	S	S (L,Fl,Fr)	M	E (decay, borer, leaf miner)

ROPS							T, Bark)		
<i>Salix xalba</i> 'Tristis' (2-8) (golden weeping willow) SAAL4	40-50	50	50	F	S-M	N	S (L,T)	M	M (decay, canker)
<i>Salix matsudana</i> (5-7) (Hankow willow) SAMA	30-40	40	40	F	S-M	N	S (L,T)	M	M (decay, canker)
<i>Salix nigra</i> (4-9) (black willow) SANI	20-30	35	30	F	S-M	N	S (L,T)	M	M (decay, canker)
<i>Sassafras albidum</i> (4-9) (sassafras) SAAL	60-70	30	25	M	S-M	N-S (root damage)	N	M	M (decay, canker, ambrosia beetle)
<i>Sorbus alnifolia</i> (4-7) (Korean mountainash) SO	60-70	40	20	M	S	N	N	N	N
<i>Sorbus aucuparia</i> (3-6) (European mountainash) SOAU	10-20	20	15	M	S	N	N	N	E (environmental, fire blight)
<i>Stewartia pseudocamellia</i> (5-7) (Japanese stewartia) ST15	50-60	20	15	S	S	N	N	N	N
<i>Styphnolobium japonicum</i> (4-7) [formerly <i>Sophora japonica</i>] (Japanese pagodatree) SOJA	70-80	50	50	M-F	M-L	N	M (Fr,T)	M	N (canker)
<i>Styrax japonicus</i> (5-8) (Japanese snowbell) STJA	50-60	20	20	S	S	N	N	N	N
<i>Syringa pekinensis</i> (4-7) (Peking lilac)	70-80	30	20	S	M	N	N	N	N

SYSP									
<i>Syringa reticulata</i> (4-7) (Japanese tree lilac) SYRE	70-80	30	20	S-M	M	N	N	N	N
<i>Taxodium ascendens</i> (5-9) (pondcypress) TAAS	80-90	50	15	F	L	N	N	M	N (mites, Japanese beetle)
<i>Taxodium distichum</i> (4-11) (baldcypress) TADI	80-90	50	20	F	L	N	N	M	N (mites, Japanese beetle)
<i>Taxus baccata</i> (4-6) (English yew) TABA	60-70	15	15	M	M-L	N	N	M	N (environmental)
<i>Taxus cuspidata</i> (4-7) (Japanese yew) TACU	60-70	10	10	M	M-L	N	N	N	N (environmental)
<i>Tetradium daniellii</i> (5-8) (Korean evodia)	60-70	25	25	M	M	M	M (Fr,T)	M	N
<i>Thuja occidentalis</i> (3-7) (American arborvitae) THOC	50-60	30	10	F	M	N	N	N	A (canker, decay, bagworm, mites)
<i>Thuja plicata</i> (5-7) (western arborvitae) THPL	80-90	40	15	F	M	N	N	N	A (canker, decay, bagworm, mites)
<i>Tilia americana</i> (3-8) (American linden, basswood) TIAM	60-70	60	35	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tilia cordata</i> (3-7) (European littleleaf linden) TICO	80-90	60	35	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tilia xeuchlora</i> (3-7)	80-90	40	20	M	L	N	M	M	M

(Crimean linden) TIEU2							(L,Fr,T)		(decay, Japanese beetle)
<i>Tilia heterophylla</i> (5-9) (white linden) TIHE	60-70	60	35	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tilia mongolica</i> (3-6) (Mongolian linden) TI	60-70	30	25	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tilia petiolaris</i> (5-7) (pendent silver linden) TIPE	60-70	70	35	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tilia platyphyllos</i> (4-6) (largeleaf linden) TIPL	60-70	60	45	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tilia tomentosa</i> (4-7) (silver linden) TITO	80-90	50	30	M	L	N	M (L,Fr,T)	M	M (decay, Japanese beetle)
<i>Tsuga canadensis</i> (3-7) (Canadian hemlock, untreated for adelgid) TSCA	20-30	40	25	F	S	N	N	N	E (environmental, wooly adelgid)
<i>Tsuga canadensis</i> (3-7) (Canadian hemlock, treated for adelgid) TSCA	70-80	60	30	F	S-L	N	N	N	N (environmental)
<i>Tsuga caroliniana</i> (4-7) (Carolina hemlock, untreated for adelgid) TSCA2	20-30	40	20	F	S	N	N	N	E (wooly adelgid)
<i>Tsuga caroliniana</i> (4-7) (Carolina hemlock, treated for adelgid)	60-70	40	20	F	L	N	N	N	N,M (environmental)

TSCA2									
<i>Ulmus alata</i> (6-9) (winged elm) ULAL	50-60	30	25	M	M	M	M (Fr)	M	A (leaf beetle)
<i>Ulmus americana</i> (3-9) (American elm, not disease resistant) ULAM	30-40	60	40	F	S-M	M	M (Fr)	M	M, E (Dutch elm disease, leaf beetle, wetwood)
<i>Ulmus americana</i> (3-9) (American elm, disease resistant hybrid) ULAM	60-70	60	40	F	M-L	M	M (Fr)	M	A (leaf beetle, wetwood)
<i>Ulmus carpinifolia</i> [<i>U. minor</i>] (5-7) (smoothleaf elm) ULPR	50-60	60	50	M	M	M	M (Fr)	M	A (leaf beetle, wetwood)
<i>Ulmus glabra</i> (4-6) (scotch elm) ULGL	50-60	60	45	M	M	M	M (Fr)	M	A (leaf beetle, wetwood)
<i>Ulmus parvifolia</i> (5-9) (Chinese elm, lacebark elm) ULPA	70-80 suggested change to 60-70	40	40	F	M	M-S	M (Fr,T)	M	A (leaf beetle, wetwood)
<i>Ulmus procera</i> (4-6) (English elm) ULPR	60-70	60	60	M	M	M	M (Fr)	M	A (leaf beetle, wetwood)
<i>Ulmus pumila</i> (4-9) (Siberian elm) ULPU	10-20	50	40	F	M	M-S	M (L,Fr,T)	M	A (leaf beetle, wetwood)
<i>Ulmus rubra</i> (3-9) (slippery elm) ULRU	60-70	40	30	F	L	M	M (Fr)	M	A (leaf beetle, wetwood)

<i>Viburnum prunifolium</i> (3-9) (blackhaw) VIPR	70-80	12	8	S	M	N	N	N	N
<i>Viburnum rufidulum</i> (5-9) (southern blackhaw) VIRU	70-80	15	10	S	M	N	N	N	N
<i>Zelkova serrata</i> (5-8) (Japanese zelkova) ZESE	90-100	50	45	F	L	N	N	M	N
<i>Ziziphus jujuba</i> [<i>Z. zizyphus</i>] (6-9) (common jujube, Chinese date) ZIZI	60-70	25	10	M	M	N	M (Fr)	N	N

⁽¹⁾ Approved by Kentucky Arborists' Association (Kentucky Chapter, International Society of Arboriculture) Board of Directors on 18 July 2017. Revised and approved on XXXXXXXXXX. This species rating list is intended as a guide and not a standard. It was developed by experienced green industry professionals based on:

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|--|--|--|---|
| a) Climate adaptability: <ul style="list-style-type: none">• cold hardiness• frost tolerance• drought tolerance• storm (ice, snow, wind) | b) Growth Characteristics: <ul style="list-style-type: none">• tolerance (different sites)• vigor• structural strength• aesthetics• life expectancy• pruning req.• invasive | c) Soil adaptability: <ul style="list-style-type: none">• structure & texture• drainage• moisture (+ or -)• pH (acid/alkaline)• nutrient (+ or -) | d) Resistance/tolerance to: <ul style="list-style-type: none">• disease• insect• air pollution |
|--|--|--|---|

While this guide is intended for use in Kentucky, it may be used without permission in other areas crediting data as having been obtained from the ***Guide to the Rating of Tree Species in Kentucky***. The copyright is held by the Regional Plant Appraisal Committee of the Kentucky Arborists' Association (Kentucky Chapter of ISA). The intent of this publication is that it will be revised approximately every five years or as deemed necessary by the Kentucky Arborists' Association Board of Directors or the Council for Tree and Landscape Appraisers (CTLA).

This guide was produced based on observations of green industry professionals who served on the Kentucky Regional Plant Appraisal Committee. Climate and cultural conditions within the Commonwealth of Kentucky are highly variable and influenced by latitude, longitude, elevation, atypical extremes in weather, significant weather events, microclimates, and cultural influences. Plant performance (growth rates and growth characteristics) in landscapes is dictated by the plant's pre-determined genetic characteristics unique to that species and is often highly variable between individuals of the same species. Longevity, performance, and failure potential are highly variable and influenced by the interaction between genetics, climate, cultural conditions, water relations, soil type, soil volume, and biotic problems (insects and diseases).

This information is intended as a guide for arborists, plant appraisers, and others working with landscapes. It is not intended as and should not be considered as a guarantee of plant performance or safety. Comments on this manual should be directed to the corresponding author, Dr. William M. Fountain, University of Kentucky, Professor of Arboriculture and Landscape Management (Bill.Fountain@uky.edu).

⁽²⁾ **Size:** All measurements for height and crown spread are in feet. The height and crown spread are considered the median (midpoint) for the species at maturity that are on an optimum growing sites in the urban environment. Cultivars are asexually propagated individuals of a species that are often selected for differences in height or spread. This data does not represent the maximum genetic potential of the species or the largest individual in the commonwealth. Sizes are based on observations by the committee and collaborated with information from *Manual of Woody Landscape Plants* (5th ed.) by Michael A. Dirr.

Committee:	William Fountain, chair	Winston Dunwell	Laura Lyon
	Julie Beale	Steve Foltz	Jonathan Perkins
	Stacy Borden	Kelly Jackson	Kris Stone
	Paul Capiello	Mike Klahr	Lee Townsend

⁽³⁾ **Growth Rate:** S=Slow (4 inches or less); M=Moderate (6 to 8 inches); F=Fast (12 inches or more) of shoot elongation per year after establishment. The normal rate of growth for an individual is site dependent and will be faster in juvenility than old age.

⁽⁴⁾ **Lifespan:** S=Short-lived (10-20 years or less); M=Moderate (30-50 years); L=Long-lived (60 years or longer). Longevity assumes optimum growing conditions. Short lifespans may be genetic or the result of common biotic or abiotic factors.

⁽⁵⁾ **Invasive / weedy potential:** N=Not known to be invasive; M=Moderately invasive; S=Significant or potentially significant potential to be invasive or weedy. Invasive references non-natives, weedy references species native to eastern North America.

⁽⁶⁾ **Litter:** N=Not serious; M=Moderate; S=Significant (Type: L=leaf; Fl=flower; Fr=fruit, T=twigs or branches). Leaf drop in the fall and shedding of other plant parts (flowers, fruit, etc.) is considered normal and is not cited except where the size or abundance is significant as compared to other species.

⁽⁷⁾ **Potential to displace pavement** (assumes tree trunk was installed within 3 feet or less of a properly constructed sidewalk and that the soil in the planting hole and under the sidewalk is not limited or compacted): N=None observed or rare; M=Moderate; S=Significant

⁽⁸⁾ **Biotic (insect &/or disease) and Abiotic (environmental, cultural) problems:** N=None common or serious; A=Aesthetic problems only (not life-threatening except on suboptimum sites or in conjunction with other stressing agents); M=Moderate, (usually not life-threatening); E=Extreme (life-threatening). Some of the significant problems are listed under select species. “Environmental” refers to extremes of temperature, soil moisture, humidity, light, etc. that are consistently or often out of the optimum range for

satisfactory performance in Kentucky landscapes. The accumulation of minor stressing agents can result in life-limiting conditions for an individual plant.

Draft 2.0 (3 November 2018)

Guide to Valuation of Tree Species in Kentucky by Percentage Class

The commonwealth of Kentucky is one of the most botanically and climatologically diverse regions in North America. The elevation ranges from 360 feet above sea level in the southwest to 4,145 feet at the summit of Black Mountain in the Appalachian Mountains. The soils and hydrology are as diverse as the elevation. This can change in a short distance as you move out of the floodplains and through valleys and over hills. While this increases the natural botanical diversity, it makes it difficult to develop a list of species adapted throughout the urban and rural areas of the commonwealth.

It is imperative that a thorough site assessment be conducted (www2.ca.uky.edu/agcomm/pubs/ID/ID244/ID244.pdf) before you begin planting. This will help to ensure that the cultural requirements for species being considered are matched to the cultural conditions on the site. A site evaluation should almost always include a percolation test (www2.ca.uky.edu/agcomm/pubs/ID/ID237/ID237.pdf) to ensure that the soil will drain sufficiently for the type of plants you are considering for your landscape.

The following list of tree species have been evaluated by a team of green industry professionals based on their climate adaptability, growth characteristics, soil adaptability, and tolerance for biotic (disease and insect) and abiotic (cultural and climate) problems. No nursery will carry all of these different types of trees but most nurseries will be glad to help you locate that special plant for your landscape. The list also does not include the mature height. This can vary with significantly with the cultivar carried by the nursery.

This ranking is divided into nine groups ranging from 10-20% to 90-100%. Avoid the temptation to select only species from the highest ranked group. There are no perfect trees or ones that are adapted to all cultural conditions and climates. Species listed in the 90-100% group may not be the most tolerant of your site or aesthetic needs in the design. Also, a landscape with a rich diversity of species is generally a healthier landscape. You can learn more about why species diversity is important in your landscape and community by consulting www2.ca.uky.edu/agcomm/pubs/ID/ID241/ID241.pdf.

Just as you should not select species only from the highest ranked group, species in the 10-20% and 20-30% group are either invasive or intolerant of our cultural conditions. Avoid these plants even though they may be sold in some nurseries. Likewise, species in the 30-40% and 40-50% may also have cultural, disease, or insect problems that limit their usefulness and increase your frustrations. Gardening should be a pleasurable learning opportunity and not a series of frustrations. Remember, no species of tree or shrub is adapted to all cultural environments and mistakes are just an opportunity to learn about a new plant. Landscapes in urban areas are almost always disturbed from their native state and may require modification in order to grow ornamental specimens.

10-20% - Species of trees that should be avoided in home landscapes

Abies balsamea (balsam fir)
Ailanthus altissima (tree of heaven)
Albizia julibrissin (mimosa)
Caragana arborescens (Siberian peashrub)
xCupressocyparis leylandii (Leyland cypress)
Elaeagnus angustifolia (Russian olive)
Fraxinus americana (white ash, untreated for EAB)
Fraxinus excelsior (European ash, untreated for EAB)
Fraxinus nigra (black ash, untreated for EAB)
Fraxinus pennsylvanica (green ash, untreated for EAB)
Lonicera maackii (Amur bush honeysuckle)
Lonicera tatarica (Tatarian bush honeysuckle)
Morus alba (white mulberry, female)
Populus nigra 'Italica' (Lombardy poplar)
Pyrus calleryana (Callery pear)
Sorbus aucuparia (European mountainash)
Ulmus pumila (Siberian elm)

20-30% - Species of trees that should be avoided in most home landscapes

Abies fraseri (Fraser fir)
Acer negundo (boxelder)
Acer pensylvanicum (striped maple)
Acer spicatum (mountain maple)
Acer tegmentosum (Manchustriped maple)
Betula papyrifera (paper birch)
Euonymus alatus (burningbush)
Euonymus bungeanus (winterberry euonymus)
Euonymus europaeus (European spindletree)
Fraxinus excelsior (European ash, treated for EAB)
Fraxinus nigra (black ash, treated for EAB)
Fraxinus quadrangulata (blue ash, untreated for EAB) – does not seem to be as susceptible to EAB as other *Fraxinus* spp. Should this

be moved to 40-50%?

Gleditsia aquatica (water locust)

Gleditsia triacanthos (thorny honeylocust)

Hibiscus syriacus (rose of Sharon, non-cultivar)

Laburnum watereri (golden chaintree)

Lagerstroemia indica (common crapemyrtle) – This is for the tree-form. Though winters are currently warmer, there is still the potential to be damaged or killed to the ground. Should this be moved to a higher ranking, perhaps 30-40% outside western KY & 40-50% (or higher) in western KY?

Malus pumila (apple) – change suggested from 60-70%

Morus rubra (red mulberry)

Paulownia tomentosa (royal paulownia, princess tree)

Picea pungens (Colorado spruce) in western Kentucky

Robinia pseudoacacia (black locust)

Salix nigra (black willow)

Tsuga canadensis (Canadian hemlock, untreated for adelgid)

Tsuga caroliniana (Carolina hemlock, untreated for adelgid)

30-40% - Problematic species that are frequently short lived

Abies procera (noble fir)

Acer platanoides (Norway maple)

Acer pseudoplatanus (sycamore maple)

Betula platyphylla (Japanese white birch)

Betula populifolia (gray birch) – change suggested from 50-60%

Cedrus libani deodara (deodar cedar)

Chamaecyparis lawsoniana (Lawson falsecypress)

Juniperus communis (common juniper)

Juniperus scopulorum (Rocky Mountain juniper)

Lagerstroemia fauriei (Japanese crapemyrtle) – should this be 40-50% in western KY? This species is a slightly harder than *L. indica* and has more mildew resistance.

Larix laricina (American larch)

Morus alba (white mulberry, male)

Picea pungens var. *glauca* (blue Colorado spruce) – in western KY

Pinus nigra (Austrian pine) – Should this be downgraded to 20-30%?

Populus alba (white poplar)

Populus deltoides (eastern cottonwood)

Prunus americana (wild plum)

Prunus armeniaca (apricot)

Prunus cerasifera (purpleleaf plum)

Prunus serotina (black cherry)

Salix matsudana (Hankow willow)

Ulmus americana (American elm, not disease resistant)

40-50%

Acer japonicum (fullmoon maple) – change suggested from 60-70%

Alnus glutinosa (European black alder)

Betula maximowicziana (monarch birch)

Carya aquatica (water hickory, bitter pecan)

Carya pallida (sand hickory)

Castanea dentata (American chestnut; blight resistant hyb.)

Castanea mollissima (Chinese chestnut)

Corylus maxima (giant filbert)

Franklinia alatamaha (Franklin tree) – change suggested to move this to the 60-70% group. I disagree as it is difficult provide the correct cultural (soil) conditions, needs shade and is not long-lived (beautiful and interesting history are not cultural factors).

Fraxinus pennsylvanica (green ash, treated for EAB)

Ginkgo biloba (ginkgo, female)

Maclura pomifera (Osage orange, female or unnamed selection) – change suggested from 60-70%

Pinus banksiana (jack pine)

Pinus peuce (Macedonian pine)

Pinus ponderosa (ponderosa pine)

Pinus rigida (pitch pine)

Pinus strobus (white pine) in western Kentucky

Pinus sylvestris (Scots pine, scotch pine)

Pinus thunbergii (Japanese black pine)

Prunus besseyi (sand cherry)

Prunus virginiana (chokecherry) – change suggested from 60-70%
Salix xalba ‘Tristis’ (golden weeping willow)

50-60%

Acer tataricum (Tatarian maple)
Carya glabra (pignut)
Chamaecyparis nootkatensis (Alaska cedar)
Chamaecyparis obtusa (hinoki falsecypress)
Chamaecyparis pisifera (sawara falsecypress)
Corylus americana (American filbert)
Corylus avellana ‘Contorta’ (contorted filbert, Harry Lauder’s walking stick)
Cotinus coggygria (smoketree)
Crataegus crus-galli (cockspur hawthorn)
Heptacodium miconioides (seven-son flower)
Ilex pedunculosa (longstalk holly)
Ilex serrata (Japanese winterberry)
Juglans cinerea (butternut)
Juglans nigra (black walnut)
Juglans regia (English walnut)
Malus sp. (crabapple) – change suggested from 60-70%
Picea rubens (red spruce)
Pinus echinata (shortleaf pine)
Pinus mugo (Swiss mountain pine)
Pinus resinosa (red pine)
Pinus taeda (loblolly pine) – outside western KY
Pinus wallichiana (Himalayan pine)
Platycladus orientalis (Oriental arborvitae)
Pseudotsuga menziesii (Douglas fir) in western Kentucky
Quercus nigra (water oak)
Stewartia pseudocamellia (Japanese stewartia)
Styrax japonicus (Japanese snowbell)
Thuja occidentalis (American arborvitae)

Ulmus alata (winged elm)
Ulmus carpinifolia [was *U. minor*] (smoothleaf elm)
Ulmus glabra (scotch elm)

60-70%

Abies concolor (white fir)
Abies nordmanniana (Nordmann fir)
Acer diabolicum (devil's maple) – change suggested from 30-40%
Acer maximowiczianum (nikko maple)
Acer palmatum (Japanese maple)
Acer rubrum (red maple, seedling forms)
Acer saccharinum (silver maple, water maple)
Acer tataricum ginnala (Amur maple)
Aesculus xcarnea (red horsechestnut)
Aesculus flava (yellow buckeye)
Aesculus glabra (Ohio buckeye)
Aesculus hippocastanum (common horsechestnut)
Aesculus pavia (red buckeye)
Amelanchier arborea (downy serviceberry)
Amelanchier canadensis (common serviceberry)
Aralia elata (Japanese angelica)
Aralia spinosa (devil's walkingstick)
Betula lenta (sweet birch, black birch)
Betula lutea (yellow birch)
Betula nigra (river birch) – change suggested from 70-80%
Carya cordiformis (bitternut, pignut)
Carya illinoensis (pecan)
Carya tomentosa (mockernut hickory)
Catalpa bignonioides (common catalpa)
Catalpa speciosa (northern catalpa)
Cedrus libani atlantica (Atlas cedar)
Celtis occidentalis (common hackberry)

Cercis canadensis (eastern redbud)
Cornus alternifolia (pagoda dogwood)
Cornus amomum (silky dogwood)
Cornus florida (flowering dogwood)
Cornus kousa (kousa dogwood)
Cornus racemosa (gray dogwood)
Cotinus obovatus (American smoketree)
Crataegus xlaalleeii (lavalley hawthorn)
Crataegus phaenopyrum (Washington hawthorn)
Crataegus viridis 'Winter King' (winter king hawthorn)
Diospyros virginiana (persimmon)
Fraxinus americana (white ash, treated for EAB)
Fraxinus quadrangulata (blue ash, treated for EAB)
Gleditsia triacanthos inermis (thornless honeylocust)
Hibiscus syriacus (rose of Sharon, named cultivars)
Larix decidua (European larch)
Larix kaempferi (Japanese larch)
Magnolia fraseri (Fraser magnolia)
Magnolia grandiflora (southern magnolia, outside western KY)
Magnolia macrophylla (bigleaf magnolia)
Magnolia tripetala (umbrella magnolia)
Oxydendrum arboreum (sourwood)
Picea engelmannii (Engelmann spruce)
Picea glauca (white spruce)
Pinus strobus (eastern white pine) – outside western Kentucky
Pinus virginiana (Virginia pine)
Pistacia chinensis (Chinese pistache)
Prunus x 'Hally Jolivette' (Hally Jolivette cherry)
Prunus sargentii (Sargent cherry)
Prunus serrulata (Japanese flowering cherry)
Prunus subhirtella (Japanese weeping cherry)
Prunus xyedoensis (Yoshino cherry)

Pseudotsuga menziesii (Douglas fir)
Quercus marilandica (blackjack oak)
Quercus palustris (pin oak)
Quercus stellata (post oak)
Rhus copallina (wing sumac)
Rhus glabra (smooth sumac, flame-leaf sumac, shining sumac)
Rhus typhina (staghorn sumac)
Sassafras albidum (sassafras)
Sorbus alnifolia (Korean mountainash)
Taxus baccata (English yew)
Taxus cuspidata (Japanese yew)
Tetradium daniellii [was *Evodia tetradium*] (Korean evodia)
Tilia americana (American linden, basswood)
Tilia heterophylla (white linden)
Tilia mongolica (Mongolian linden)
Tilia petiolaris (pendent silver linden)
Tilia platyphyllos (largeleaf linden)
Ulmus americana (American elm, disease resistant hybrid)
Ulmus procera (English elm)
Ulmus rubra (slippery elm)
Ziziphus jujuba [*Z. zizyphus*] (common jujube, Chinese date)

70-80%

Abies cilicica (Cilician fir)
Acer buergerianum (trident maple)
Acer griseum x *maximowicziana* (Girard maple)
Acer rubrum (red maple, improved cultivars)
Acer saccharum (sugar maple)
Acer saccharum nigrum (black maple)
Amelanchier xgrandiflora (apple serviceberry)
Amelanchier laevis (Allegheny serviceberry)
Asimina triloba (pawpaw)

Carpinus betulus (European hornbeam)
Carpinus caroliniana (American hornbeam)
Carpinus cordata (heartleaf hornbeam)
Carpinus japonica (Japanese hornbeam)
Carya laciniosa (shellbark hickory)
Carya ovata (shagbark hickory)
Cedrus libani stenocoma (hardy cedar of Lebanon)
Celtis laevigata (sugar hackberry)
Chionanthus retusus (Chinese fringetree)
Chionanthus virginicus (white fringetree)
Cladrastis kentukea (Kentucky yellowwood)
Corylus colurna (Turkish filbert)
Halesia tetraptera (silverbell)
Hamamelis mollis (Chinese witchhazel)
Hamamelis virginiana (common witchhazel)
Hydrangea paniculata (peegee hydrangea)
Ilex opaca (American holly)
Koelreuteria paniculata (golden raintree)
Liquidambar styraciflua (sweetgum)
Liriodendron tulipifera (tulip poplar)
Magnolia sp. (magnolia, named cultivar or hybrid)
Magnolia acuminata (cucumber magnolia)
Magnolia grandiflora (southern magnolia, in western KY)
Magnolia heptapeta (Yulan magnolia)
Magnolia liliiflora (lily magnolia)
Magnolia xsoulangiana (saucer magnolia)
Magnolia stellata (star magnolia)
Malus sp. (crabapple, improved cultivars)
Ostrya carpinifolia (European hophornbeam)
Parrotia persica (Persian parrotia)
Phellodendron amurense (Amur corktree)
Picea omorika (Serbian spruce)

Picea pungens (Colorado spruce) – outside western KY
Pinus cembra (Swiss stone pine)
Pinus densiflora (Japanese red pine)
Pinus flexilis (limber pine)
Pinus koraiensis (Korean pine)
Pinus parviflora (Japanese white pine)
Pinus taeda (loblolly pine) – in western KY
Platanus xacerifolia (London planetree)
Platanus occidentalis (eastern sycamore)
Pseudolarix kaempferi (golden larch)
Quercus cerris (turkey oak)
Quercus robur (English oak)
Styphnolobium japonicum [formerly *Sophora japonica*] (Japanese pagodatree)
Syringa pekinensis (Peking lilac)
Syringa reticulata (Japanese tree lilac)
Tsuga canadensis (Canadian hemlock, treated for adelgid)
Tsuga caroliniana (Carolina hemlock, treated for adelgid)
Ulmus parvifolia (Chinese elm, lacebark elm)
Viburnum prunifolium (blackhaw)
Viburnum rufidulum (southern blackhaw)

80-90%

Acer campestre (hedge maple)
Acer griseum (paperbark maple)
Acer miyabei (miyabe maple)
Acer truncatum (shantung maple)
Aesculus parviflora (bottlebrush buckeye)
Cercidiphyllum japonicum (katsuratree)
Cornus mas (cornelian cherry dogwood)
Cornus officinalis (Japanese cornelian cherry dogwood)

Eucommia ulmoides (hardy rubber tree)
Fagus grandifolia (American beech)
Fagus sylvatica (European beech)
Gymnocladus dioica (Kentucky coffeetree, female)
Ilex decidua (possumhaw)
Juniperus chinensis (Chinese juniper)
Juniperus virginiana (eastern red cedar)
Maackia amurensis (Amur maackia)
Magnolia xloebneri (Loebner magnolia)
Magnolia virginiana (sweetbay magnolia)
Magnolia virginiana australis (sweetbay magnolia, southern form)
Metasequoia glyptostroboides (dawn redwood)
Nyssa aquatica (water black gum)
Ostrya virginiana (hophornbeam)
Picea abies (Norway spruce) – suggestion to downgrade to 70-80% and 60-70% (in western KY) due to diseases, mites, warming climate, etc. It is certainly no longer considered relatively problem free.
Picea orientalis (oriental spruce)
Pinus bungeana (lacebark pine)
Quercus acutissima (sawtooth oak)
Quercus coccinea (scarlet oak)
Quercus falcata (southern red oak)
Quercus imbricaria (shingle oak)
Quercus laurifolia (laurel oak)
Quercus lyrata (overcup oak)
Quercus muehlenbergii (chinkapin oak)
Quercus pagodifolia (cherrybark oak)
Quercus phellos (willow oak)
Quercus prinus (chestnut oak)
Quercus rubra (red oak)
Quercus shumardii (Shumard oak)
Quercus velutina (black oak)
Taxodium ascendens (pondcypress)

Taxodium distichum (baldcypress)
Thuja plicata (western arborvitae)
Tilia cordata (European littleleaf linden)
Tilia xeuchlora (Crimean linden)
Tilia tomentosa (silver linden)

90-100%

Ginkgo biloba (ginkgo, male)
Gymnocladus dioica (Kentucky coffeetree, male)
Maclura pomifera (Osage orange, male)
Nyssa sylvatica (blackgum)
Quercus alba (white oak)
Quercus bicolor (swamp white oak)
Quercus macrocarpa (bur oak)
Zelkova serrata (Japanese zelkova)

Resources:

Anon. *Guide for Plant Appraisal* 10th ed. International Society of Arboriculture © 2018

Anon. US Forest Service Species List and Species Code (accessed 26 August 2018)
https://www.nrs.fs.fed.us/tools/ufore/local-resources/downloads/PDF_UDORE_SPECIES_LIST.pdf

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