



# Front Range Tree Recommendation List®

This revised Front Range Tree Recommendation List was developed through the collaborative efforts of 16 individuals each representing a different aspect of Colorado's Green Industry. Green Industry organizations represented included American Society of Landscape Architects (ASLA); Colorado Nursery and Greenhouse Association (CNGA); municipal arborists representing the Colorado Tree Coalition and International Society of Arboriculture, Colorado State University (CSU) Extension, Denver Botanic Gardens (DBG), Colorado State Forest Service (CSFS) and Colorado Arborists and Lawn Care Professionals (CALCP). Based on the committee's collective education, knowledge and experience over 211 trees or varieties were evaluated and rated, resulting in a single reference list for professionals to use and share with customers or residents.

The purpose of this project was to update and expand an original list creating a Front Range Tree list for use by Green Industry professionals based on decades of actual experience growing and caring for trees in our area. The list is intended to assist those involved in the buying, growing, selling, selection, siting and specification of trees, with the ultimate goal of a healthy, diverse and geographically appropriate landscape and urban forest. The ratings apply to the Colorado Front Range, generally defined as the region from Colorado Springs to the Wyoming border and from the foothills to the eastern plains.

The initial list of evaluated trees was based on a compilation of six 2023 Front Range Nursery Catalogs plus recommendations from committee members. The group evaluated each tree based upon five different critical factors and eight cautionary cultural factors along with three other categories. After evaluating each tree based on these critical, cautionary and other categories, each tree was placed in one of four categories or placed in a non-recommended list.

## RECOMMENDED

A tree is recommended if it has consistently displayed no serious vitality issues related to any of the critical factors.

## RECOMMENDED FOR MOST SITES

A tree in this category is generally recommended for most sites but may have one vitality issue to one of the critical factors or have a cautionary problem.

## CONDITIONALLY RECOMMENDED

A tree is Conditionally Recommended if it has consistently displayed serious vitality issues related to one or more critical factors and one or more cautionary factors. Some of these critical and cultural factors can be mitigated thru proper horticultural care.

## TREES WITH POTENTIAL

A tree with potential is often offered for sale and has the potential to do well here (USDA Hardiness Zone Rating of 5 or below) but the committee felt it has less than ten years of experience growing and maintaining a significant population of the trees in this area. The intention is to move these trees into one of the other categories based upon collective experience of list users.

## NOT RECOMMENDED

A tree is not recommended if it has consistently displayed overwhelming vitality issues related to several of the critical factors or can be expected to do poorly under normal circumstances.

Also added to this revised list is the category of Colorado Native. Under water use, low water use would designate it is a xeric or water wise woody plant.

When using this list to assist in tree selection for a specific planting location, a site analysis relating to cultural factors,

including a soil test to determine pH, texture and composition should be performed. We assume the list users are aware of the physical attributes of these trees (mature size, fall color, growth habit, texture, flowers, fruit etc.) or have access to that information.

The Front Range Tree Recommendation List® is downloadable on the websites of CNGA, ASLA, CTC, CALCP, ISA, CSU Extension, and Colorado State Forest Service, the hard copy document was paid for with contributions from some of the collaborating organizations and nurseries.

## COMMITTEE MEMBERS:

- Landscape Architects – ASLA – Don Godi
- Nursery person – CNGA – Stan Brown, Matt Ruud, Keith Williamson, David Dickey, Debi Borden-Miller
- CSU Representatives – CSU Extension – Jim Klett, David Staats, Eric A. Hammond, Alison O'Connor and Daniel Burcham
- Municipal Arborists – CTC, CALCP and ISA – Luke Killoran, City of Lakewood; Ben Rickenbacker, City and County of Denver; Freddie Haberecht, City of Fort Collins
- Denver Botanic Gardens – Elena Shtern
- Colorado State Forest Service (CSFS) – Kamie Long



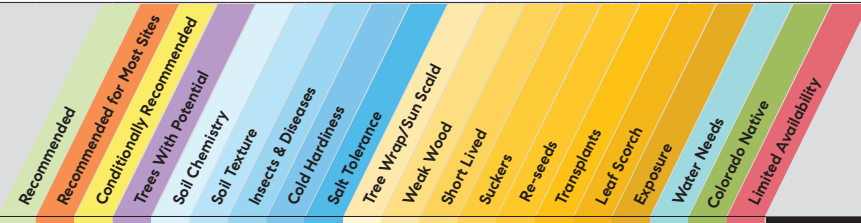
DECIDUOUS ALPHA – BOTANICAL

Plant Nomenclature from World Flora Online		Recommended	Recommended for Most Sites	Conditionally Recommended	Trees With Potential	Soil Chemistry	Soil Texture	Insects & Diseases	Cold Hardiness	Salt Tolerance	Tree Wrap/Sun Scald	Weak Wood	Short Lived	Suckers	Re-seeds	Transplants	Leaf Scorch	Exposure	Water Needs	Colorado Native	Limited Availability	COMMENTS
Botanical Name	Variety or Common Name	RATING	CRITICAL				CAUTIONARY					OTHER										
<b>Acer</b>	<b>Maple</b>																					
<i>Acer campestre</i>	Hedge	X					X												l-m	X		Variable hardiness from seed; prone to winter dieback in hard early freezes
<i>Acer tataricum</i> subsp. <i>ginnala</i>	Amur/Ginnala – ‘Flame’	X		X			X		X				X						l-m			Can develop chlorosis in alkaline soils
<i>Acer glabrum</i>	Rocky Mountain	X			X														m-h	X		Prefers more moisture
<i>Acer grandidentatum</i>	Bigtooth	X																	l-m	X	X	
<i>Acer saccharum</i> subsp. <i>grandidentatum</i>	Bigtooth – ROCKY MOUNTAIN GLOW®, HIGHAND PARK®	X					X												l-m	X		Tree forms
<i>Acer griseum</i>	Paperbark			X			X							X	X				m	X		Needs a protected site; does not transplant well when bare rooted
<i>Acer miyabei</i>	Miyabe	X					X			X									l-m			Variable hardiness
<i>Acer negundo</i>	Boxelder ‘Sensation’	X								X									l-m	X		Tolerant of alkaline soils; male tree so no boxelder bugs
<i>Acer platanoides</i>	Norway – ‘Columnare’, ‘Crimson King’, ‘Crimson Sentry’, ‘Deborah’, EMERALD LUSTER®, ‘Emerald Queen’, ‘Fairview’, ‘Royal Red’	X							X							X			m			<i>Acer platanoides</i> is prone to sunscald and leaf scorch in hot dry sites
<i>Acer rubrum</i>	Red – ‘Autumn Flame’, REDPOINTE®, RED SUNSET®		X		X		X	X											m			Chlorosis; <i>Acer rubrum</i> needs an acidic soil
<i>Acer saccharum</i>	Sugar – GREEN MOUNTAIN®, LEGACY®, FALL FIESTA®	X		X	X		X	X											m			<i>Acer saccharum</i> prefers well drained, neutral to acidic soils
<i>Acer saccharum</i>	Sugar – Caddo ‘John Pair’, ‘Autumn Splendor’, FLASH FIRE®	X					X	X									X		l-m			Tolerant of alkaline soils
<i>Acer tataricum</i>	Tartarian	X								X			X						l-m	X		
<i>Acer tataricum</i>	Tartarian HOT WINGS®	X								X			X						l-m			Plant Select®
<i>Acer truncatum</i> x <i>platanoides</i>	NORWEGIAN SUNSET®, CRIMSON SUNSET®, PACIFIC SUNSET®			X			X	X	X										l-m	X		Prone to winter dieback and early hard freezes
<b>Aesculus</b>	<b>Buckeye/Horsechestnut</b>																					
<i>Aesculus glabra</i> var. <i>arguta</i>	Texas Buckeye (Western Buckeye)		X																l-m	X		More heat tolerant than the species
<i>Aesculus glabra</i>	Ohio Buckeye	X					X						X	X					m			Some chlorosis; prone to leaf scorch in hot dry sites
<i>Aesculus hippocastanum</i>	Common Horsechestnut	X					X	X								X			m	X		
<i>Aesculus flava</i>	Yellow Buckeye	X														X			m	X		
<i>Aesculus x carnea</i>	‘Briotti’, Fort McNair’			X			X	X	X							X			m	X		
<b>Alnus</b>	<b>Alder</b>																					
<i>Alnus glutinosa</i>	European			X			X												m-h	X		
<i>Alnus incana</i> subsp. <i>tenuifolia</i>	Thinleaf/ Mountain	X					X				X		X						m-h	X		Leaf miner; leaf scorch in hot dry sites
<b>Amelanchier</b>	<b>Serviceberry</b>																					
<i>Amelanchier alnifolia</i>	Saskatoon	X										X							l-m			Large shrub; best used as multi-stem
<i>Amelanchier canadensis</i>	Shadblow	X										X							l-m	X		Best used as multi-stem
<i>Amelanchier laevis</i>	Allegheny			X								X							m	X		Available in tree or shrub form
<i>Amelanchier x grandiflora</i>	‘Autumn Brilliance’	X		X								X							m			Available in tree or shrub form; prefers acid soil; develops chlorosis in alkaline soils; prone to basal suckering.
<b>Betula</b>	<b>Birch</b>																					All species winter watering recommended
<i>Betula nigra</i>	River – HERITAGE®		X	X	X	X				X									m-h			Develops chlorosis in alkaline soils; bronze birch borer
<i>Betula occidentalis</i>	Rocky Mountain/ Water	X			X					X									m-h	X		Best as a multi-stem
<i>Betula pendula</i>	European White – ‘Gracilis’		X		X					X									m-h			Bronze birch borer
<i>Betula platyphylla</i>	Asian White – ‘Whitespire’, DAKOTA PINNACLE®, PARKLAND PILLAR®		X		X					X									m-h			Bronze birch borer

DECIDUOUS ALPHA – BOTANICAL

Plant Nomenclature from World Flora Online		Recommended	Recommended for Most Sites	Conditionally Recommended	Trees With Potential	Soil Chemistry	Soil Texture	Insects & Diseases	Cold Hardiness	Salt Tolerance	Tree Wrap/Sun Scald	Weak Wood	Short Lived	Suckers	Re-seeds	Transplants	Leaf Scorch	Exposure	Water Needs	Colorado Native	Limited Availability	COMMENTS	
Botanical Name	Variety or Common Name	RATING			CRITICAL				CAUTIONARY						OTHER								
<b>Carpinus</b>	<b>Hornbeam</b>																						
<i>Carpinus betulus</i>	European – ‘Frans Fontaine’			X						X								X	m				Needs protected site
<i>Carpinus betulus</i>	‘Fastigiata’	X								X								X	m				Needs protected site
<i>Carpinus caroliniana</i>	American hornbeam			X						X								X	m		X		Moderate water,needs protected site
<b>Carya</b>	<b>Hickory</b>																						
<i>Carya illinoensis</i>	Pecan			X											X		X	X	m		X		Not reliable fruit set
<b>Catalpa</b>	<b>Catalpa</b>																						Fall cleanup consideration for all species
<i>Catalpa ovata</i>	Chinese			X						X									I-m		X		
<i>Catalpa speciosa</i>	Northern/ Western, HEARTLAND®	X								X										I-m			
<b>Celtis</b>	<b>Hackberry</b>																						
<i>Celtis occidentalis</i>	Common Hackberry, PRAIRIE SENTINEL®	X								X			X							I-m			Weak Wood; Animal Damage; Nipple Gall cosmetic
<b>Cercis</b>	<b>Redbud</b>																						All species need protected site
<i>Cercis canadensis</i>	Eastern	X								X									X	m			Northern seed source
<i>Cercis canadensis</i>	Eastern – ‘Alba’, ‘Forest Pansy’			X			X			X									X	m		X	
<i>Cercis canadensis</i>	‘Ruby Falls’			X						X									X	m			
<b>Cercidiphyllum</b>	<b>Katsura</b>																						
<i>Cercidiphyllum japonicum</i>	Katsura Tree			X																m		X	Needs protected site
<b>Cladrastis</b>	<b>Yellowwood</b>																						
<i>Cladrastis kentukea</i>	American Yellowwood		X							X	X								X	m		X	
<b>Cornus</b>	<b>Dogwood</b>																						
<i>Cornus controversa</i>	Giant – ‘June Snow’			X															X	m		X	
<i>Cornus mas</i>	Cornelian Cherry, ‘Golden Glory’	X																		m		X	Best used as multi-stem
<b>Corylus</b>	<b>Hazelnut</b>																						
<i>Corylus colurna</i>	Turkish Filbert/Hazelnut		X												X					I-m		X	
<b>Crataegus</b>	<b>Hawthorn</b>																						
<i>Crataegus crus-galli</i>	Cockspur var. <i>inermis</i>	X					X													I-m			
<i>Crataegus ambigua</i>	Russian	X					X													I			
<i>Crataegus douglasii</i>	River/Douglas		X				X					X								m	X	X	Rust is an issue
<i>Crataegus laevigata</i>	English – ‘Crimson Cloud’		X				X													m		X	Fireblight
<i>Crataegus mollis</i>	Downy		X				X													I-m		X	Rust
<i>Crataegus x mordenensis</i>	‘Toba’		X				X			X										m			
<i>Crataegus phaenopyrum</i>	Washington	X					X													m			Fireblight
<i>Crataegus viridis</i>	Green – ‘Winter King’	X																		I-m			Preferred Hawthorn for CO
<b>Fagus</b>	<b>Beech</b>																						
<i>Fagus sylvatica</i>	European Beech, ‘Riversii’, ‘Dawyck Purple’		X			X				X									X	m		X	Best in well drained soils
<b>Ginkgo</b>	<b>Ginkgo</b>																						
<i>Ginkgo biloba</i>	Ginkgo/ Maidenhair Tree, ‘Princeton Sentry’, ‘Autumn Gold’		X				X							X		X				m		X	Plant male cultivar; slow to establish
<b>Gleditsia</b>	<b>Honeylocust</b>																						
<i>Gleditsia triacanthos</i>	Thornless Common – NORTHERN ACCLAIM®		X				X			X										I-m		X	Wrap young trees
<i>Gleditsia triacanthos</i>	Thornless Common – IMPERIAL®, SHADEMASTER®, SKYLINE®	X					X			X										I-m			Wrap young trees
<i>Gleditsia triacanthos</i>	Thornless Common – SUNBURST®		X				X			X										I-m			Wrap young trees; overplanted variety

DECIDUOUS ALPHA – BOTANICAL



Plant Nomenclature from World Flora Online																COMMENTS	
Botanical Name	Variety or Common Name	RATING	CRITICAL				CAUTIONARY				OTHER						
<b>Gymnocladus</b>	<b>Coffeetree</b>																
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	X														I-m	Pods on female messy
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree – ESPRESSO®, DECAF®, SKINNY LATTE™, PRAIRIE TITAN™	X														I-m	Seedless cultivars
<b>Koelreuteria</b>	<b>Chinese lantern tree</b>																
<i>Koelreuteria paniculata</i>	Goldenraintree	X							X		X				I		Reseeds aggressively
<b>Liquidambar</b>	<b>Sweetgum</b>																
<i>Liquidambar styraciflua</i>	American Sweetgum			X	X	X	X								m	X	Needs a well drained soil; Protected placement
<b>Liriodendron</b>	<b>Tuliptree</b>																
<i>Liriodendron tulipifera</i>	Tuliptree		X				X		X						m	X	
<i>Liriodendron tulipifera</i>	Tuliptree, EMERALD CITY®			X			X		X						m		
<b>Maackia</b>	<b>Maackia</b>																
<i>Maackia amurensis</i>	Amur Maackia			X											I-m	X	
<b>Maclura</b>																	
<i>Maclura pomifera</i>	Osage Orange 'White Shield'			X			X				X				I-m	X	Use male, thornless, seedless variety; dieback can be an issue
<b>Magnolia</b>	<b>Magnolia</b>																
<i>Magnolia acuminata</i>	Cucumbertree			X					X						m	X	
<i>Magnolia x soulangiana</i>	Saucer			X					X				X	m			Exposure & elevation affect flowering; needs protected placement
<b>Malus</b>	<b>Fruit Apple</b>																All varieties subject to codling moth & fireblight
<i>Malus</i> varieties	HoneyCrisp, McIntosh, Red Delicious, Sweet Sixteen, Zestar	X					X								m		
<b>Malus</b>	<b>Crabapple</b>																Fireblight possible in all varieties
<i>Malus</i> 'Adirondack'	Adirondack		X				X								I-m	X	Upright branching
<i>Malus</i> x 'Branzam'	BRANDYWINE®		X				X								I-m		Large messy fruits
<i>Malus</i> x 'Coralcole'	CORALBURST®	X													I-m		Disease resistant
<i>Malus</i> 'Dolgo'	Dolgo		X				X								I-m	X	Messy fruit
<i>Malus</i> 'Gladiator'	Gladiator		X				X								I-m		Columnar form; purple leaf
<i>Malus</i> 'Indian Magic'	Indian Magic	X					X		X						I-m		Poor structure
<i>Malus</i> 'Louisa'	Louisa		X				X								I-m		Weeping form
<i>Malus</i> 'Prairiefire'	Prairiefire		X				X								I-m		
<i>Malus</i> 'Prairie Rose'	Prairie Rose			X			X								I-m	X	Fruitless
<i>Malus</i> 'Radiant'	Radiant	X													I-m		
<i>Malus</i> 'Red Barron'	Red Barron	X					X								I-m		Upright form
<i>Malus</i> 'JFS-KW5'	ROYAL RAINDROPS®	X													I-m		
<i>Malus sargentii</i>	Sargent	X					X								I-m		Shrubby form; higher resistance to fireblight
<i>Malus sargentii</i> 'Tina'	Sargent Tina	X													I-m		Dwarf form; higher resistance to fireblight
<i>Malus</i> 'Spring Snow'	Spring Snow	X					X								I-m		Fruitless
<i>Malus</i> 'Thunderchild'	Thunderchild	X													I-m		
<b>Morus</b>	<b>Mulberry</b>																
<i>Morus alba</i>	White Mulberry 'Chaparral'		X				X		X						m		Weeping form; some dieback

DECIDUOUS ALPHA – BOTANICAL

Plant Nomenclature from World Flora Online		Recommended	Recommended for Most Sites	Conditionally Recommended	Trees With Potential	Soil Chemistry	Soil Texture	Insects & Diseases	Cold Hardiness	Salt Tolerance	Tree Wrap/Sun Scald	Weak Wood	Short Lived	Suckers	Re-seeds	Transplants	Leaf Scorch	Exposure	Water Needs	Colorado Native	Limited Availability	COMMENTS	
Botanical Name	Variety or Common Name	RATING	CRITICAL				CAUTIONARY					OTHER											
<b>Ostrya</b>	<b>Hophornbeam</b>																						
<i>Ostrya virginiana</i>	American Hophornbeam			X											X					I-m		X	
<b>Phellodendron</b>	<b>Corktree</b>																						
<i>Phellodendron amurense</i>	Amur corktree			X			X													m		X	
<b>Platanus</b>	<b>Planetree</b>																						
<i>Platanus x acerifolia</i>	London Planetree 'EXCLAMATION!®'	X					X	X		X									X	m-h			Anthracnose
<i>Platanus occidentalis</i>	American sycamore	X					X	X		X									X	m-h		X	Anthracnose
<b>Populus</b>	<b>Poplar (cottonwood)</b>																						
<i>Populus angustifolia</i>	Narrowleaf	X					X				X	X	X							I-m	X		Vigorous suckering; forms colonies. Use in native areas only
<i>Populus deltoides</i>	Eastern	X					X				X	X	X							m-h			Too big for small yards; Choose male cultivar
<i>Populus deltoides</i> subsp. <i>monilifera</i>	Plains 'Jerominus'	X																		m	X		Too big for small yards; Choose male cultivar
<i>Populus tremula</i> 'Erecta'	Upright European, Aspen		X				X					X	X							m			Unique form; prone to many diseases and insects
<i>Populus tremuloides</i>	Quaking Aspen		X				X					X	X							m	X		Better at 7800' +; chlorosis at lower elevations; prone to many diseases & insects
<i>Populus tremuloides</i>	PRAIRIE GOLD®			X			X					X	X							m			Reported to do better at lower elevations
<i>Populus x acuminata</i>	Lanceleaf	X									X		X							m	X		Too big for small yards; Plant male cultivar
<i>Populus x acuminata x sargentii</i>	Highland	X					X				X		X							m	X		Too big for small yards
<b>Prunus</b>	<b>Fruiting types</b>																						
<i>Prunus armeniaca</i>	Apricot-Chinese	X																	X	m		X	Great ornamental; seldom sets fruit along the front range
<i>Prunus armeniaca</i>	Apricot 'Moongold', 'Moorpark'	X																		m		X	Great fall color; seldom sets fruit along the front range
<i>Prunus cerasus</i> 'Evans Bali'	Sour Cherry- Evans Bali		X																	m			Sour cherry
<i>Prunus avium</i> 'Bing'	Bing		X					X											X	m		X	Seldom sets fruit along the front range; needs a cross pollinizer
<i>Prunus avium</i> 'Stella Compact'	Stella Compact		X					X											X	m		X	Seldom sets fruit along the front range
<i>Prunus cerasus</i>	Cherry – 'Montmorency', 'North Star'	X					X													m			North Star = dwarf form 10' x 10'
<i>Prunus persica</i> 'Elberta', 'Polly', 'Red Haven'	Peach – Elberta, Polly, Red Haven		X					X											X	m			Unreliable fruit set along the front range
<i>Prunus persica</i> 'Reliance', 'Veteran', 'Contender'	Peach – Reliance, Veteran, Contender		X					X											X	m			Later blooming; more reliable fruit set
<i>Prunus</i> 'Mount Royal'	Plum – Mount Royal	X																		m			Self fruitful plum
<i>Prunus salicina</i> 'Santa Rosa'	Plum – Santa Rosa	X						X											X	m			Needs a cross pollinizer
<i>Prunus</i> 'Stanley'	Plum- Stanley	X						X											X	m			Self fruitful plum
<i>Prunus</i> 'Superior'	Plum-Superior	X						X											X	m			Needs a cross pollinizer
<i>Prunus</i> 'Toka'	Plum – Toka		X					X											X	m			Needs a cross pollinizer
<b>Prunus</b>	<b>Ornamental types</b>																						
<i>Prunus cerasifera</i> 'Newport'	Newport Plum (Kankakee strain)		X					X				X								m			Upright form; borers
<i>Prunus cerasifera</i> 'Newport'	Newport Plum		X					X				X								m			Rounded form; borers
<i>Prunus cerasifera</i> 'Frankthrees'	Plum – MT. ST. HELENS®		X					X				X								m			Sport of 'Newport'
<i>Prunus maackii</i>	Amur Chokecherry			X				X											X	m		X	Root diseases if too wet; Susceptible to frost cracking
<i>Prunus nigra</i> 'Princess Kay'	Plum 'Princess Kay'		X									X								I-m			Plant Select® variety; suckers when mature
<i>Prunus padus</i>	European Birdcherry	X									X				X					m			Some breakage after storms; prolific flowering

DECIDUOUS ALPHA – BOTANICAL

Recommended  
 Recommended for Most Sites  
 Conditionally Recommended  
 Trees With Potential  
 Soil Chemistry  
 Soil Texture  
 Insects & Diseases  
 Cold Hardiness  
 Salt Tolerance  
 Tree Wrap/Sun Scald  
 Weak Wood  
 Short Lived  
 Suckers  
 Re-seeds  
 Transplants  
 Leaf Scorch  
 Exposure  
 Water Needs  
 Colorado Native  
 Limited Availability

Plant Nomenclature from World Flora Online																COMMENTS		
Botanical Name	Variety or Common Name	RATING	CRITICAL				CAUTIONARY				OTHER							
<b>Prunus</b>	<b>Ornamental types</b>																	
<i>Prunus padus</i>	European Birdcherry – SUMMER GLOW®, 'Merlot'	X								X					m	X	Red leaf form; good alternative to Canada Red; some breakage after storms;	
<i>Prunus sargentii</i>	'Pink Flare'				X										X	m		
<i>Prunus virginiana</i>	Common Chokecherry – 'Canada Red', 'Schubert'	X				X				X	X	X				l-m		Tree form suckers; best as shrub
<i>Prunus x fontanesiana</i>	Plum – Des Fontaines				X										m	X	Zone 3 ornamental cherry; long lived for a <i>Prunus</i>	
<i>Prunus x 'P002S'</i>	(PP25,767) Prunus- SUCKER PUNCH®	X													l-m	X	Plant Select® variety; suckers less than Canada Red	
<b>Pyrus</b>	<b>Pear</b>																	
<i>Pyrus</i>	Pear – 'Bartlett', 'Early Gold', 'Golden Spice', 'Luscious', 'Parker', 'Summercrisp'	X				X									l-m		Fruiting varieties; Needs a cross pollinizer.	
<i>Pyrus calleryana</i>	Callery – 'Aristocrat', CHANTICLEER® (aka 'Cleveland Select'), 'Autumn Blaze', 'Redspire'	X													l-m		Ornamental varieties	
<i>Pyrus calleryana</i>	Jack™	X				X									l-m		Rounded, compact habit	
<i>Pyrus calleryana</i>	Callery – 'Capital', JAVELIN®	X				X									l-m		Narrow form	
<i>Pyrus ussuriensis</i>	Ussurian – 'Prairie Gem', 'Mt. Frost'	X				X									l-m	X	More cold hardy than <i>P.calleryana</i>	
<b>Quercus</b>	<b>Oak</b>																	
<i>Quercus acutissima</i>	Sawtooth				X	X									l-m	X		
<i>Quercus alba</i>	White		X			X	X			X				X	l-m	X	Develops chlorosis in alkaline soils	
<i>Quercus bicolor</i>	Swamp White	X				X				X					m		Can develop some chlorosis in alkaline soils	
<i>Quercus buckleyi</i>	Texas Red	X							X						l	X	Many seed sources not predictably hardy	
<i>Quercus gambelii</i>	Gambel	X						X				X			l	X	Shrubby habit; susceptible to galls.	
<i>Quercus imbricaria</i>	Shingle				X	X			X						l-m	X	X	Develops chlorosis in alkaline soils
<i>Quercus macrocarpa</i>	Bur	X						X							l-m		Susceptible to galls	
<i>Quercus macrocarpa 'Urban Pinnacle'</i>	Urban Pinnacle' Oak	X						X							l-m		Narrow form; susceptible to gamble oak borer	
<i>Quercus muehlenbergii</i>	Chinkapin	X													l-m	X		
<i>Quercus robur</i>	English	X						X							l-m		Susceptible to gamble oak borer	
<i>Quercus robur</i>	English 'Columnaris'	X						X	X						l-m		Susceptible to gamble oak borer	
<i>Quercus robur x macrocarpa</i>	HERITAGE®	X													l-m		Most resistant to galls; vigorous growth	
<i>Quercus rubra</i>	Red	X			X	X									m		Develops chlorosis in alkaline soils	
<i>Quercus shumardii</i>	Shumard	X													l-m		From a northern source	
<i>Quercus undulata</i>	Wavyleaf	X													l	X	X	Shrubby habit
<i>Quercus alba x robur</i>	CRIMSON SPIRE®, STREETSPIRE®	X													l-m		Columnar forms	
<i>Quercus robur x bicolor</i>	REGAL PRINCE®, KINDRED SPIRIT®	X													l-m		KINDRED SPIRIT® most narrow columnar oak	
<b>Salix</b>	<b>Willow</b>																	
<i>Salix alba</i>	Niobe Weeping – 'Tristis'	X						X			X				h			
<i>Salix alba</i>	Russian Golden – 'Vitellina'	X						X			X				h		X	
<i>Salix amygdaloides</i>	Peachleaf	X						X			X				l-m	X	X	More common as a multistem
<i>Salix x 'Prairie Cascade'</i>	Prairie Cascade, Weeping	X								X					h			
<b>Styphnolobium (Sophora)</b>	<b>Pagodatree</b>																	
<i>Styphnolobium (Sophora) japonica</i>	Japanese Pagodatree, Millstone™	X				X	X		X	X				X	m	X	Canker	

DECIDUOUS ALPHA — BOTANICAL

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Botanical Name	Variety or Common Name	RATING		CRITICAL				CAUTIONARY						OTHER								
<b>Sorbus</b>	<b>Mountain-ash</b>																					Fireblight possible on all species
<i>Sorbus intermedia</i>	Swedish Whitebeam			X						X									m	X		
<i>Sorbus aucuparia</i>	European	X					X			X									m			
<i>Sorbus aucuparia</i>	European – CARDINAL ROYAL®	X					X			X									m			
<i>Sorbus x hybrida</i>	Oak Leaf			X						X									m	X		More resistant to fireblight
<b>Syringa</b>	<b>Lilac</b>																					
<i>Syringa reticulata</i> subsp. <i>pekinensis</i>	Peking – ‘Summer Charm’	X																	I-m			Attractive copper colored peeling bark
<i>Syringa reticulata</i>	Japanese – ‘Ivory Silk’	X																	I-m			
<b>Tilia</b>	<b>Linden</b>																					
<i>Tilia americana</i>	American- American Sentry™, ‘Redmond’	X							X						X				m			More resistant to Japanese beetle
<i>Tilia cordata</i>	Littleleaf – GREENSPIRE®	X					X		X						X				m			Susceptible to Japanese beetle
<i>Tilia cordata x mongolica</i>	‘Harvest Gold’			X					X						X				m	X		
<i>Tilia tomentosa</i>	Silver – ‘Sterling Silver’	X							X						X				m			More resistant to Japanese beetle
<i>Tilia x flavescens</i>	‘Glenleven’	X							X						X				m			
<b>Ulmus</b>	<b>Elm</b>																					Selected for Dutch Elm Disease resistance
<i>Ulmus americana</i>	American – ‘Valley Forge’, ‘New Harmony’, ‘Princeton’		X				X												I-m			Scale
<i>Ulmus davidiana</i>	David, GREENSTONE®, CHOICECITY®	X																	I-m	X		Elm leaf beetle resistant
<i>Ulmus davidiana</i> var. <i>japonica</i>	ACCOLADE® (‘Morton’)	X					X												I-m			No scale; elm leaf beetle resistant
<i>Ulmus davidiana</i> var. <i>japonica</i>	NORTHERN EMPRESS®			X															I-m	X		Hardy; dwarf; purple fall color
<i>Ulmus davidiana</i> var. <i>japonica</i>	‘Prospector’		X																I-m	X		Holds leaves late
<i>Ulmus japonica x U. pumila</i> ‘New Horizon’	‘New Horizon’			X															I-m			Fast grower
<i>Ulmus minor x U. parvifolia</i>	‘Frontier’		X				X												I-m	X		Subject to early fall frost
<i>Ulmus x ‘Morton Glossy’</i>	TRIUMPH® Elm	X					X												I-m			Elm leaf beetle; No scale
<b>Xanthoceras</b>	<b>Yellowhorn</b>																					
<i>Xanthoceras sorbifolium</i>	Yellowhorn- CLEAR CREEK™			X															I-m	X		Plant Select®
<b>Zelkova</b>	<b>Zelkova</b>																					
<i>Zelkova serrata</i>	Japanese Zelkovia ‘Musashino’			X			X								X				m	X		

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Botanical Name	Variety or Common Name	RATING	CRITICAL					CAUTIONARY					OTHER										
<b>Abies</b>	<b>Fir</b>																						
<i>Abies concolor</i>	White	X		X				X											m	X			Needs even, reliable moisture; needs well drained soil; chlorosis
<b>Cedrus</b>	<b>Cedar</b>																						
<i>Cedrus libani</i>	Cedar of Lebanon			X	X	X												X	m		X		
<b>Hesperocyparis</b>	<b>Cypress</b>																						
<i>Hesperocyparis arizonica</i>	Arizona Cypress	X			X	X												X	l		X		Seed source important
<i>Hesperocyparis arizonica</i>	Arizona Cypress 'Blue Ice', CRYSTAL FROST™			X	X	X												X	l		X		
<b>Juniperus</b>	<b>Juniper</b>																						
<i>Juniperus chinensis</i>	'Blue Point'		X																X	l-m			
<i>Juniperus chinensis</i>	Chinese – 'Spartan', 'Spearmint', 'Hetzi Columnaris'	X																		l-m			
<i>Juniperus monosperma</i>	One – Seed	X																	l	X	X		Needs a dry site.
<i>Juniperus scopulorum</i>	Rocky Mountain	X																	l	X	X		Vector for Cedar Apple Rust
<i>Juniperus scopulorum</i>	Rocky Mountain – 'Welchii', 'Gray Gleam', 'Cologreen', 'Wichita Blue' 'Moonglow'	X																	l				Vector for Cedar Apple Rust
<i>Juniperus scopulorum</i>	Rocky Mountain – 'Medora', 'Skyrocket', 'Woodward'	X																	l				Columnar forms; vector for Cedar Apple Rust
<i>Juniperus virginiana</i>	Eastern Red Cedar – 'Hillspire', 'Idyllwild', 'Blue Arrow'	X																	X	l-m			Vector for Cedar Apple Rust
<i>Juniperus virginiana</i>	Eastern Red Cedar – 'Taylor'	X																	X	l-m			Columnar form; vector for Cedar Apple Rust
<b>Larix</b>	<b>Larch</b>																						
<i>Larix decidua</i>	European Larch		X																	m-h		X	
<b>Metasequoia</b>	<b>Dawn Redwood</b>																						
<i>Metasequoia glyptostroboides</i>	Dawn Redwood			X	X	X													X	m			
<b>Picea</b>	<b>Spruce</b>																						
<i>Picea abies</i>	Norway – 'Cupressina'		X																X	m-h			Will not take windy sites; needs a more protected area
<i>Picea englemannii</i>	Engleman Spruce		X																	m-h	X	X	
<i>Picea glauca</i>	Black Hills 'Densata', 'Wiskey Blue Hills'	X																		m-h		X	
<i>Picea omorika</i>	Serbian			X		X	X													m-h		X	
<i>Picea pungens</i>	Colorado	X					X	X												m-h	X		Tussock moth in large trees
<i>Picea pungens glauca</i>	Colorado Blue – BABY BLUE®, 'Baby Blue Eyes', 'Bakeri', 'Fastigiata', 'Fat Albert', 'Hoopsi', 'Colorado Weeping', 'Sester Dwarf'	X					X	X												m-h	X		Possible ips beetle problem
<b>Pinus</b>	<b>Pine</b>																						
<i>Pinus aristata</i>	Bristlecone(foxtail)	X						X												l-m	X		Slow growing
<i>Pinus bungeana</i>	Lacebark			X																m-h		X	needs well drained soil
<i>Pinus cembra</i>	Swiss Stone Pine			X	X															l-m		X	
<i>Pinus contorta</i>	Lodgepole			X			X													l-m	X	X	Chlorosis at lower elevations; susceptible to Mountain pine beetle
<i>Pinus edulis</i>	Pinyon	X					X													l-m	X		Susceptible to Pitch mass borer, Pine tip moth, Mountain pine beetle.
<i>Pinus flexilis</i>	Limber		X				X													l-m	X	X	
<i>Pinus flexilis</i>	'Vanderwolf's Pyramid'	X					X													l-m	X		



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<i>Pinus heldreichii</i>	Bosnian	X																	m				
<i>Pinus heldreichii</i>	Bosnian – ‘Emerald Arrow’	X																	m				Narrow form; often listed as <i>P. leucodermis</i> (synonym)
<i>Pinus monophylla</i>	Singleleaf Pinyon		X																l		X		
<i>Pinus mugo</i>	Mugo – ‘Tannenbaum’	X																	l-m				
<i>Pinus nigra</i>	Austrian ‘Oregon Green’	X																	m				Some Zimmerman pine moth
<i>Pinus nigra</i>	Austrian – ‘Arnold’s Sentinel’, ‘Frank’		X																m				Columnar forms
<i>Pinus ponderosa</i>	Ponderosa	X							X										l-m	X			
<i>Pinus strobus</i>	Eastern White			X		X		X										X	m		X		Soil chlorosis; wind damage
<i>Pinus strobiformis</i>	Southwestern White	X																	l-m	X			
<i>Pinus sylvestris</i>	Scotch		X					X											m				Pine wilt nematode (PWN)
<b><i>Pseudotsuga</i></b>	<b>Douglas-fir</b>																						
<i>Pseudotsuga menziesii</i> var. <i>glauca</i>	Rocky Mountain Douglas fir	X							X										m	X			
<b><i>Sequoiadendron</i></b>	<b>Giant Sequoia</b>																						
<i>Sequoiadendron giganteum</i>	Giant Sequoia – ‘Hazel Smith’				X	X	X										X	m-h		X			
<b><i>Taxodium</i></b>	<b>Baldcypress</b>																						
<i>Taxodium distichum</i> ‘Mickelson’	Baldcypress – SHAWNEE BRAVE™		X					X											m-h		X		
<b><i>Thuja</i></b>																							
<i>Thuja occidentalis</i>	Eastern Arborvitae – ‘Emerald’, ‘Techny’, ‘Degroots Spire’, ‘North Pole’		X					X										X	m-h				Needs protected area; susceptible to winter burn
<i>Thuja standishii</i> x <i>Thuja plicata</i>	Green Giant		X															X	m-h		X		Needs protected area

