



Front Range Tree Recommendation List[®]

This Front Range Tree Recommendation List[®] was developed through the collaborative efforts of 12 individuals, three from each of the four participating professional groups: the American Society of Landscape Architects (ASLA), the Colorado Nursery & Greenhouse Association (CNGA), municipal arborists representing the Colorado Tree Coalition (CTC), and the Colorado State University (CSU) Extension. Based on the committee's collective education, knowledge, and experience over 250 trees or varieties were evaluated and rated, resulting in a single reference list for professionals to use and share with their customers or residents.

The purpose of this project was to create 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. This 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. We encourage industry professionals to prepare similar lists for other geographic regions using this as a template.

The initial list of evaluated trees was based on a compilation of six 2010 Front Range Nursery catalogs plus recommendations from committee members. The group evaluated each tree based upon 5 Critical and 8 Cautionary Cultural Factors, resulting in one of four ratings:

A - Generally Recommended.

A tree is Generally Recommended if it has consistently displayed no serious vitality issues related to any of the five Critical factors.

B - Conditionally Recommended. A tree is Conditionally Recommended if it has consistently displayed serious vitality issues related to one or more of the five Critical factors. Some cultural factors such as sun scald can be mitigated thru proper horticultural care, in this case using tree wrap.

C - Potential/Unproven. A tree is listed as Potential/Unproven if it is offered for sale locally and has the potential to do well here (a USDA Hardiness Zone Rating of 5 or below), but the committee has less than ten years of experience growing and maintaining a significant population of the tree in our area. As this list is periodically updated, the intention is to move trees with a C rating to one of the other categories based upon the collective experience of the list users.

D - Not Recommended. A tree is Not Recommended if it has consistently displayed overwhelming vitality issues related to one or more of the five Critical factors or can be expected to do poorly under normal circumstances.

When using this list to assist in tree selection for a specific planting location, a site analysis relating to the 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 this information.

The Front Range Tree Recommendation List[®] is downloadable on the websites of the CNGA, ASLA, CTC, and CSU Extension. This hardcopy document was paid for with contributions from the GreenCO Foundation and the Colorado Nursery Research and Education Foundation (CNREF). If you are interested in participating in future updates of this list, please provide your contact information on the CNGA website, coloradonga.org. Click on Resources and Tree List.

COMMITTEE MEMBERS

Landscape Architects - ASLA: Gail Barry; David Flaig; Don Godi

Nurserymen - CNGA: Stan Brown; Matt Edmundson; Gary Epstein

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Municipal Arborists - CTC: Tim Buchanan, Fort Collins; Scott Grimes, South Suburban Parks; Michael Swanson, Denver

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DECIDUOUS ALPHA-BOTANIC

Botanical Name	Variety or Common	Rating	Cultural Factors														Comments:					
			Critical					Cautionary					Other									
			SC	ST	ID	CH	SA	TS	WW	SL	SU	RS	TR	LS	EX	WN		LA				
Acer	Maple																					
<i>Acer campestre</i>	Hedge	B				x												I-m	x	Variable hardiness from seed; prone to winter dieback in hard early freezes		
<i>Acer x freemanii</i>	Freeman - 'Armstrong', Autumn Blaze®, Autumn Fantasy®, Celebration®, Sienna Glen®	B	x				x	x											m	Develops chlorosis in alkaline soils		
<i>Acer ginnala</i>	Amur/ Ginnala - 'Flame'	B	x				x							x					I-m	Can develop chlorosis in alkaline soils		
<i>Acer glabrum</i>	Rocky Mountain	B		x															m-h	Prefers more moisture		
<i>Acer grandidentatum</i>	Big Tooth	A																	I-m	x		
<i>Acer grandidentatum</i>	Big Tooth - Manzano™	C				x													I-m	x	More tree-like than <i>Acer grandidentatum</i>	
<i>Acer griseum</i>	Paperbark	C				x								x				x	m	x	Needs a protected site; does not transplant well when bare rooted	
<i>Acer miyabei</i>	Miyabe	C				x					x								I-m	x	Typically budded to <i>A.campestre</i> that shows variable hardiness from seed	
<i>Acer negundo</i>	Boxelder/ Ash-leaved - 'Sensation'	C									x								I-m	x	Tolerant of alkaline soils; holds a strong dominate leader; male tree so no boxelder bugs	
<i>Acer palmatum</i>	Japanese	B	x	x		x					x								m-h	x	Prefers well drained soils low in salt content with some protection	
<i>Acer platanoides</i>	Norway - 'Columnare', 'Crimson King', 'Crimson Sentry', 'Deborah', Emerald Lustre®, 'Emerald Queen', Fairview®, 'Royal Red'	B								x										m	<i>Acer platanoides</i> is prone to sunscald and leaf scorch in hot dry sites	
<i>Acer pseudosieboldianum</i>	Korean/Purplebloom	C								x										m	x	More tolerant of heavy soils than <i>Acer palmatum</i> , but still needs protection
<i>Acer rubrum</i>	Red - Autumn Flame®	B	x				x	x												m	Chlorosis; <i>Acer rubrum</i> needs an acidic soil	
<i>Acer rubrum</i>	Red - Burgundy Belle®	C	x				x	x												m	x	Develops chlorosis in alkaline soils
<i>Acer rubrum</i>	Red - Northwood®	B	x				x	x												m	Develops chlorosis in alkaline soils	
<i>Acer rubrum</i>	Red - October Glory®	B	x				x	x												m	Develops chlorosis in alkaline soils	
<i>Acer rubrum</i>	Red - Redpointe®	C	x				x	x												m	x	Develops chlorosis in alkaline soils
<i>Acer rubrum</i>	Red - Red Sunset®	B	x				x	x												m	Develops chlorosis in alkaline soils	
<i>Acer saccharinum</i>	Silver - 'Silver Queen'	B	x				x	x	x											m	Develops chlorosis in alkaline soils	
<i>Acer saccharinum</i>	Silver - 'Skinner'	B	x				x	x	x											m	x	Develops chlorosis in alkaline soils
<i>Acer saccharum</i>	Sugar - Green Mountain®	B	x	x			x	x												m	<i>Acer saccharum</i> prefers well drained, neutral to acidic soils	
<i>Acer saccharum</i>	Sugar - Legacy®	B	x	x			x	x												m	x	Can develop chlorosis in alkaline soils
<i>Acer saccharum</i>	Sugar - Caddo 'John Pair', 'Autumn Splendor'	C				x		x												I-m	x	Alkaline tolerant; needs protected site
<i>Acer tataricum</i>	Tartarian	A													x					I-m	x	
<i>Acer tataricum</i>	Tartarian -Hot Wings®	A													x					I-m		
<i>Acer tataricum</i>	Tartarian - Pattern Perfect™	A													x					I-m		
<i>Acer truncatum x platanoides</i>	Norwegian Sunset®	C				x														I-m	x	Prone to winter dieback in early hard freezes & possible death at -30°
Aesculus	Buckeye/Horsechestnut																					
<i>Aesculus arguta</i>	Texas	A																		I-m	x	More heat tolerant than <i>A.glabra</i>
<i>Aesculus glabra</i>	Ohio	A																		m	x	Some chlorosis; prone to leaf scorch in hot dry sites
<i>Aesculus hippocastanum</i>	Common Horsechestnut	A																		m	x	
<i>Aesculus octandra(flava)</i>	Yellow	C																		m	x	
<i>Aesculus x camea</i>	'Briotti'	C																		m	x	
<i>Aesculus x camea</i>	'Fort McNair'	C																		m		
Alnus	Alder																					
<i>Alnus glutinosa</i>	Common /Black	B				x														m-h	Leaf miner; leaf scorch in hot dry sites	
<i>Alnus tenuifolia</i>	Thinleaf/ Mountain	A				x														m-h	Leaf miner; leaf scorch in hot dry sites	
Amelanchier	Serviceberry																					
<i>Amelanchier alnifolia</i>	Saskatoon	A																		I-m	Best used as multi-stem	

KEY

CRITICAL: SC=Soil Chemistry • ST=Soil Texture • ID=Insects & Diseases • CH= Cold Hardiness • SA=Salt Tolerance
CAUTIONARY: TS=Tree Wrap/Sun Scald • WW=Weak Wood • SL=Short Lived • SU=Suckers • RS= Re-seeds • TR=Transplants • LS=Leaf Scorch • EX=Exposure
OTHER: WN= Water Needs • LA= Limited Availability

DECIDUOUS ALPHA-BOTANIC

Botanical Name Plant Nomenclature from <i>Manual of Woody Landscape Plants</i> by Michael A. Dirr 2009 edition.	Variety or Common	Rating	Cultural Factors														Other		Comments:	
			Critical					Cautionary												
			SC	ST	ID	CH	SA	TS	WW	SL	SU	RS	TR	LS	EX	WN	LA			
<i>Amelanchier canadensis</i>	Shadblow	A								x								l-m	x	Best used as multi-stem
<i>Amelanchier laevis</i>	Allegheny - 'Snowcloud', Spring Flurry®	C								x								m	x	Best used as multi-stem
<i>Amelanchier lamarckii</i>	Lamarck	C								x								m	x	Best used as multi-stem
<i>Amelanchier x grandiflora</i>	Autumn Brilliance®, 'Princess Diana', 'Robin Hill'	B	x							x								m		Prefers acid soil; develops chlorosis in alkaline soils; prone to basal suckering; best used shrub.
Betula	Birch																			
<i>Betula nigra</i>	River - Heritage®	B	x		x		x											m-h		Develops chlorosis in alkaline soils and bronze birch borer
<i>Betula occidentalis</i>	Rocky Mountain/ Water	B			x													m-h		Bronze birch borer
<i>Betula papyrifera</i>	Paper	B			x													m-h		Bronze birch borer
<i>Betula pendula</i>	European White - 'Gracilis'	B			x													m-h		Bronze birch borer
<i>Betula platyphylla</i>	Asian White - 'Whitespire'	B			x					x								m-h		Bronze birch borer
Carpinus	Hornbeam																			
<i>Carpinus betulus</i>	European - 'Frans Fontaine'	C						x									x	m		Needs protected site
<i>Carpinus betulus</i>	'Fastigiata' ('Pyramidalis')	B						x									x	m	x	Needs protected site
Catalpa	Catalpa																			
<i>Catalpa ovata</i>	Chinese	A							x									l-m	x	
<i>Catalpa speciosa</i>	Northern/ Western	A							x									l-m		
Celtis occidentalis	Common	A															x	l-m		
Cercis	Redbud																			
<i>Cercis canadensis</i>	Eastern	A							x								x	h		Northern seed source
<i>Cercis canadensis</i>	Eastern - 'Alba'	C							x								x	m	x	
<i>Cercis canadensis</i>	Eastern - 'Forest Pansy'	B				x			x								x	m	x	
<i>Cercis canadensis</i>	Eastern -Lavender Twist™	C							x								x	m		
Cladrasis kentukea	American Yellowwood	C							x								x	m	x	
Cornus	Dogwood																			
<i>Cornus controversa</i>	Giant - 'June Snow'	C																m	x	Time will tell
<i>Cornus mas</i>	Cornelian Cherry	A																m	x	Best used as multi-stem
Corylus colurna	Turkish Filbert/Hazelnut	C															x	l-m	x	
Crataegus	Hawthorn																			
<i>Crataegus crusgalli</i>	Cockspur var. <i>inermis</i>	A																l-m		
<i>Crataegus ambigua</i>	Russian	A																l		
<i>Crataegus douglasii</i>	River/Douglas	B								x								m	x	
<i>Crataegus laevigata</i>	English - 'Crimson Cloud', 'Pauls Scarlet'	B				x												m	x	Fireblight
<i>Crataegus mollis</i>	Downy	B				x												l-m	x	Rust
<i>Crataegus x mordenensis</i>	'Toba'	B				x				x								m		
<i>Crataegus phaenopyrum</i>	Washington	A																m		
<i>Crataegus viridis</i>	Green - 'Winter King'	A																l-m		
<i>Crataegus x lavallei</i>	Lavalle	C																m	x	
Fagus sylvatica	European Beech - 'Roseomarginata', 'Tricolor'	B		x				x										m	x	Best in well drained soils
Fraxinus	Ash																			
<i>Fraxinus americana</i>	White - Autumn Purple®	B			x			x										m		EAB- not yet detected in CO.
<i>Fraxinus americana</i>	White - 'Empire'	C			x			x										m	x	EAB- not yet detected in CO.
<i>Fraxinus mandshurica</i>	Manchurian - 'Mancana'	B			x													m	x	Some resistance to EAB; susceptible to lilac ash borer

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			Critical					Cautionary							Other							
			SC	ST	ID	CH	SA	TS	WW	SL	SU	RS	TR	LS	EX	WN	LA					
<i>Fraxinus nigra</i>	Black - 'Fallgold'	B			x						x							m		EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - 'Bergeson'	C			x													m	x	EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - Cimmarron®	B			x													m	x	EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - Dakota Centennial™	C			x													m	x	EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - 'Marshall's Seedless'	B			x													I-m		EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - 'Patmore'	B			x													I-m		EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - Prairie Spire®	C			x													I-m	x	EAB not yet detected in CO.		
<i>Fraxinus pennsylvanica</i>	Green - 'Summit'	B			x													I-m		EAB not yet detected in CO.		
Ginkgo biloba	Ginkgo/ Maidenhair Tree	B				x												x	m	x		
Gleditsia	Honeylocust																					
<i>Gleditsia triacanthos v. inermis</i>	Thornless Common -Halka™	B								x									I-m	x	Wrap young tree	
<i>Gleditsia triacanthos v. inermis</i>	Thornless Common - Imperial®, Shademaster®, Skyline®	A								x									I-m		Wrap young tree	
<i>Gleditsia triacanthos v. inermis</i>	Thornless Common - Sunburst®	B				x				x	x								I-m		Wrap young tree	
Gymnocladus	Kentucky Coffeetree																					
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	A																	I-m			
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree - 'Espresso'	C																	I-m	x		
Heptacodium miconiodes	Seven-Son Flower	C				x													m	x		
Hibiscus syriacus	Rose-of-Sharon - 'Aphrodite', 'Ardens', 'Coelistic', 'Lucy', 'Red Heart', 'Woodbridge'	C																	m	x		
<i>Juglans nigra</i>	Black Walnut	D			x														I	x	Thousand cankers disease	
<i>Koelreuteria paniculata</i>	Panicked Goldenraintree	B								x									I			
<i>Liquidambar styraciflua</i>	American Sweetgum	C		x		x													m	x	Needs a well drained soil	
<i>Liriodendron tulipifera</i>	Tuliptree	C				x													m	x		
Maackia amurensis	Amur Maackia	C																	I-m	x		
Magnolia																						
<i>Magnolia acuminata</i>	Cucumbertree	C																	m	x		
<i>Magnolia x 'Galaxy'</i>	Galaxy	C																	x	m	x	
<i>Magnolia x soulangiana</i>	Saucer	A																	x	m		
Malus	Apple																					
<i>Malus 'Gala'</i>	Gala	B			x														m		Not reliable fruit producer, fireblight	
<i>Malus 'Granny Smith'</i>	Granny Smith	D			x	x	x												m	x	Considered zone 6, fire blight	
<i>Malus 'Haralred'</i>	Haralred	B					x												m		Good northern apple, subject to codling moth	
<i>Malus 'Honeycrisp'</i>	HoneyCrisp	C																	m	x	Subject to codling moth	
<i>Malus 'Jonathan'</i>	Jonathan	B			x														m		Fireblight, subject to codling moth	
<i>Malus 'Liberty'</i>	Liberty	C																	m		Subject to codling moth	
<i>Malus 'McIntosh'</i>	McIntosh	B			x														m		Fireblight, subject to codling moth	
<i>Malus 'Red Delicious'</i>	Red Delicious	A																	m		Subject to codling moth	
<i>Malus 'Royal Gala'</i>	Royal Gala	B			x														m		Fireblight, subject to codling moth	
<i>Malus 'Sweet Sixteen'</i>	Sweet Sixteen	C																	m		Northern selection, subject to codling moth	
<i>Malus 'Yellow Delicious'</i>	Yellow Golden Delicious	A																	m		Subject to codling moth	
<i>Malus 'Zestar'</i>	Zestar	C																	m	x	Subject to codling moth	
Malus	Crabapple																					
<i>Malus 'Adams'</i>	Adams	A																	I-m	x		
<i>Malus x 'Branzam'</i>	Brandywine®	B			x														I-m		Large messy fruits, firelight	

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			Critical					Cautionary										WN	LA	
			SC	ST	ID	CH	SA	TS	WW	SL	SU	RS	TR	LS	EX					
Plant Nomenclature from Manual of Woody Landscape Plants by Michael A. Dirr 2009 edition.																				
<i>Malus x 'Centzam'</i>	Centurion®	A																I-m		Disease resistant
<i>Malus x 'Coralcole'</i>	Coralburst™	A																I-m		Disease resistant
<i>Malus 'David'</i>	David	A																I-m	x	
<i>Malus 'Dolgo'</i>	Dolgo	B			x													I-m	x	Messy fruit; fireblight
<i>Malus x 'Schmidtcutleaf'</i>	Golden Raindrops®	D			x													I-m	x	Some fireblight
<i>Malus 'Hopa'</i>	Hopa	B			x													I-m	x	Some fireblight, messy fruit
<i>Malus 'Indian Magic'</i>	Indian Magic	A								x								I-m		Poor structure
<i>Malus 'Indian Summer'</i>	Indian Summer	A																I-m		
<i>Malus ioensis</i>	Bechtel 'Plena'	D			x													I-m	x	Fireblight
<i>Malus 'Prairiefire'</i>	Prairiefire	B			x													I-m		Fireblight
<i>Malus 'Prairie Rose'</i>	Prairie Rose	C																I-m	x	
<i>Malus 'Profusion', 'Radiant'</i>	Profusion, Radiant	A																I-m		
<i>Malus 'Red Barron'</i>	Red Barron	C																I-m	x	Fireblight
<i>Malus 'Red Jade', 'Royalty'</i>	Red Jade, Royalty	D			x													I-m	x	Fireblight
<i>Malus 'Robinson', 'Royal Raindrops'</i>	Robinson, Royal Raindrops	C																I-m	x	
<i>Malus sargentii</i>	Sargent	A			x													I-m		
<i>Malus sargentii 'Tina'</i>	Sargent Tina	C																I-m		
<i>Malus 'Spring Snow'</i>	Spring Snow	A			x													I-m		Some fireblight
<i>Malus 'Thunderchild'</i>	Thunderchild	A																I-m		
<i>Malus 'Velvetcole'</i>	Velvet Pillar™	C																I-m	x	
Morus alba	White - 'Chaparral'	B				x				x								m		Some dieback
Phellodendron amurense	Amur corktree	C																m	x	
Platanus x acerifolia	London Planetree -'Bloodgood'	C			x	x										x		m-h		Anthraxnose
Populus	Poplar (cottonwood)																			
<i>Populus angustifolia</i>	Narrowleaf	B			x					x	x	x						I-m		Vigorous suckering; forms colonies. Use in native areas only
<i>Populus deltoides</i>	Eastern	B			x					x	x	x						m-h		Too big for residential use
<i>Populus sargentii</i>	Plains	A								x								m-h		Too big for residential use
<i>Populus sargentii</i>	Sargent, Straight Plains 'Jeronimus'	A																m		Too big for residential use
<i>Populus tremula 'Erecta'</i>	Upright European, Aspen	B			x						x	x						m		Unique form; prone to many diseases and insects
<i>Populus tremuloides</i>	Quaking Aspen	B			x						x	x						m		Better at high elevations, chlorosis at lower elevations, prone to many diseases & insects
<i>Populus x acuminata</i>	Lanceleaf	A								x		x						m		Too big for residential use
<i>Populus x acuminata x sargentii</i>	Highland	B			x					x		x						m		Too big for residential use
<i>Populus x canescens 'Tower'</i>	Tower	D			x						x	x						m	x	Prone to many diseases and insects
Prunus	Apricot																			
<i>Prunus armeniaca</i>	Chinese	A															x	m	x	Seldom sets fruit along the front range
<i>Prunus armeniaca</i>	'Moongold', 'Moorpark'	A																m	x	Great fall color; seldom sets fruit along the front range
Prunus	Plum, Cherry																			
<i>Prunus avium 'Bali'</i>	Bali	C																m		Semi- sweet cherry
<i>Prunus avium 'Bing'</i>	Bing	B				x											x	m	x	Seldom sets fruit along the front range
<i>Prunus avium 'Stella Compact'</i>	Stella Compact	B				x											x	m	x	Seldom sets fruit along the front range
<i>Prunus cerasifera</i>	Newport (Kankakee)	B			x						x							m		Borers
<i>Prunus cerasifera</i>	Newport (Minnesota)	B			x						x							m	x	Borers
<i>Prunus cerasus</i>	Cherry -'Montmorency', 'North Star'	A																m		
<i>Prunus 'Frankthrees'</i>	Cherry - Mt. Saint Helens®	B			x	x					x						x	m		
<i>Prunus maackii</i>	Amur Chokecherry	B			x												x	m	x	Root diseases if too wet
<i>Prunus 'Mount Royal'</i>	Cherry -Mount Royal	A																m		Self fruitful plum

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<i>Prunus padus</i>	European Birdcherry	A							x				x			m		Some breakage after storms	
<i>Prunus padus</i>	European Birdcherry Summer Glow®	A							x							m	x	Some breakage after storms; red leaf form	
<i>Prunus persica</i>	'Elberta', 'Polly'	B				x									x	m		Seldom sets fruit along the front range	
<i>Prunus persica</i>	'Reliance'	B				x									x	m	x	Seldom sets fruit along the front range	
<i>Prunus</i>	'Santa Rosa'	A														m		Needs a cross pollinator	
<i>Prunus</i>	'Stanley'	A														m		Self fruitful plum	
<i>Prunus</i>	'Superior'	A														m	x	Needs a cross pollinator	
<i>Prunus</i>	'Toka'	A														m	x	Needs a cross pollinator	
<i>Prunus virginiana</i>	Common Chokecherry - 'Canada Red', 'Schubert'	B			x				x	x	x					l-m		Tree form suckers, best as shrub	
<i>Prunus x fontanesiana</i>	Plum - Des Fontaines	C														m	x	Zone 3 ornamental cherry; long lived for a <i>Prunus</i>	
<i>Ptelea trifoliata</i>	Wafer ash, Hoptree	A							x			x				l-m	x	Best as a multi-stem	
Pyrus	Pear																		
<i>Pyrus</i>	Pear - 'Bartlett', 'Early Gold', 'Golden Spice', 'Luscious', 'Parker'	B			x											l-m		Fireblight	
<i>Pyrus</i>	Pear - 'Summercrisp'	B														l-m	x		
<i>Pyrus calleryana</i>	Callery - 'Bradford'	D				x			x	x						l-m			
<i>Pyrus calleryana</i>	Callery - 'Aristocrat', 'Chanticleer', 'Cleveland Select'	A														l-m			
<i>Pyrus calleryana</i>	Callery - 'Autumn Blaze'	B			x											l-m		Fireblight	
<i>Pyrus calleryana</i>	Callery - 'Capital'	A			x											l-m			
<i>Pyrus calleryana</i>	Callery - 'Redspire'	A														l-m			
<i>Pyrus ussuriensis</i>	Ussurian - 'Prairie Gem', 'Burgandy'	B			x											l-m	x	More cold hardy than <i>P.calleryana</i> , fireblight	
<i>Pyrus ussuriensis</i>	Ussurian - 'Mt. Frost'	B			x											l-m	x	Fireblight	
Quercus	Oak																		
<i>Quercus alba</i>	White	B	x	x			x									l-m	x	Develops chlorosis in alkaline soils	
<i>Quercus bicolor</i>	Swamp White	B	x				x									m		Develops chlorosis in alkaline soils	
<i>Quercus buckleyi</i>	Texas Red	C				x										l	x	Many seed sources not predictably hardy	
<i>Quercus ellipsoidalis</i>	Northern Pin	C	x													m	x	Develops chlorosis in alkaline soils	
<i>Quercus gambelii</i>	Gambel	A									x					l			
<i>Quercus macrocarpa</i>	Bur	A														l-m			
<i>Quercus muehlenbergii</i>	Chinkapin	A														l-m	x	From northern seed source	
<i>Quercus robur</i>	English	A														l-m			
<i>Quercus robur</i>	English 'Columnaris'	B				x										l-m			
<i>Quercus robur</i>	English 'Skyrocket', 'Skymaster'	C														l-m	x		
<i>Quercus rubra</i>	Red	B	x													m		Develops chlorosis in alkaline soils	
<i>Quercus shumardii</i>	Shumard	B				x										l-m		From a northern source	
<i>Quercus undulata</i>	Wavyleaf	A														l			
<i>Quercus alba x robur</i>	Crimson Spire®	A														l-m			
<i>Quercus robur x bicolor</i>	Regal Prince®	C														l-m			
<i>Robinia pseudoacacia</i>	Black Locust - 'Purple Robe'	D			x				x	x						l-m		Highly susceptible to borer damage	
Salix	Willow																		
<i>Salix alba</i>	Niobe Weeping - 'Tristis'	B			x				x							h		Aphids and cankers	
<i>Salix alba</i>	Russian Golden - 'Vitellina'	B			x				x							h	x	Aphids and cankers	
<i>Salix amygdaloides</i>	Peachleaf	B			x				x							l-m	x	Aphids and cankers	

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DECIDUOUS ALPHA-BOTANIC

Botanical Name	Variety or Common	Rating	Cultural Factors														Other		Comments:	
			Critical					Cautionary												
			SC	ST	ID	CH	SA	TS	WW	SL	SU	RS	TR	LS	EX	WN				LA
Plant Nomenclature from <i>Manual of Woody Landscape Plants</i> by Michael A. Dirr 2009 edition.																				
<i>Salix matsudana</i>	Globe - 'Navajo'	D			x	x											h	x	Aphids and cankers	
<i>Salix</i> x 'Prairie Cascade'	Prairie Cascade	B								x							h		Aphids and cankers	
<i>Sophora japonica</i>	Japanese Pagodtree	B				x			x	x							x	m	x	
Sorbus	Mountain-ash																			
<i>Sorbus intermedia</i>	Swedish Whitebeam	C							x									m	x	
<i>Sorbus aucuparia</i>	European	B				x			x									m	x	Fireblight
<i>Sorbus aucuparia</i>	European - Cardinal Royal®	B				x			x									m	x	Fireblight
<i>Sorbus x hybrida</i>	Oak Leaf	C							x									m	x	
Syringa	Lilac																			
<i>Syringa pekinensis</i>	Peking - 'Summer Charm'	C																I-m	x	
<i>Syringa reticulata</i>	Japanese - 'Ivory Silk'	A																I-m		
Tilia	Linden																			
<i>Tilia americana</i>	American - 'Legend', 'American Sentry'	A																m		Not tolerant of road salts
<i>Tilia cordata</i>	Littleleaf - 'Greenspire®'	A																m		Not tolerant of road salts
<i>Tilia tomentosa</i>	Silver - 'Sterling Silver'	A																m	x	Not tolerant of road salts
<i>Tilia cordata</i> x <i>mongolica</i>	'Harvest Gold'	C																m	x	
<i>Tilia x flavescens</i>	'Glenleven'	A															x	m		Not tolerant of road salts
<i>Tilia x euchlora</i>	'Redmond'	A															x	m		Not tolerant of road salts
Ulmus	Elm																			
<i>Ulmus americana</i>	American - 'Princeton'	C				x												I-m	x	Some susceptibility to DED, scale
<i>Ulmus americana</i>	American - 'Valley Forge' 'Triumph'	C																I-m		Good DED resistance, scale
<i>Ulmus davidiana</i>	David	C																I-m	x	
<i>Ulmus propinqua</i>	'Emerald Sunshine'	C																I-m	x	Holds leaves late
<i>Ulmus wilsoniana</i>	'Prospector'	C																I-m	x	Holds leaves late
<i>Ulmus japonica</i> x <i>U. pumila</i>	'Vanguard'	C																I-m	x	Not best growth habit
<i>Ulmus japonica</i> x <i>U. wilsoniana</i>	'Accolade' 'Triumph'	C																I-m	x	
<i>Ulmus minor</i> x <i>U. parvifolia</i>	'Frontier'	C					x											I-m	x	Subject to early fall frost
<i>Ulmus</i> 'Urban' x <i>U. wilsoniana</i>	'Patriot'	C																I-m	x	Narrower growth habit
<i>Ulmus wilsoniana</i> x <i>U. pumila</i> x <i>U. minor</i>	'Commendation'	C																I-m	x	Early frequent pruning needed when young
Xanthoceras sorbifolium	Yellowhorn, Clear Creek®	C																I-m	x	
Zelkova serrata	Japanese Zelkova																			
<i>Zelkova serrata</i>	'Musashino'	C					x											m		
<i>Zelkovia serrata</i>	'Green Vase'	C					x											m		
<i>Zelkovia serrata</i>	'Village Green'	C					x											m		

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Botanical Name	Variety or Common	Rating	Cultural Factors														Comments:	
			Critical				Cautionary							Other				
Plant Nomenclature from <i>Manual of Woody Landscape Plants</i> by Michael A. Dirr 2009 edition.			SC	CH	ID	ST	SA	TS	WW	SL	SU	RS	TR	LS	EX	WN	LA	
<i>Abies concolor</i>	White	B	x			x	x									m		Needs more moisture; needs well drained soil; chlorosis
<i>Cedrus libani</i>	Cedar of Lebanon	C		x												m	x	
Juniperus			Juniper															
<i>Juniperus chinensis</i>	Chinese - 'Blue Point', 'Spartan', 'Spearmint'	B		x		x									x	l-m		
<i>Juniperus chinensis</i>	Chinese - 'Hetzi Columnaris'	A														l-m		
<i>Juniperus monosperma</i>	One -Seed	A														l	x	Needs a dry site.
<i>Juniperus osteosperma</i>	Utah	A														l	x	Needs a dry site.
<i>Juniperus scopulorum</i>	Rocky Mountain	A														l	x	
<i>Juniperus scopulorum</i>	Rocky Mountain - 'Welchii', 'Gray Gleam', 'Cologreen', 'Sky Rocket', 'Wichita Blue' 'Moonglow', 'Medora'	A														l		
<i>Juniperus virginiana</i>	Eastern Red Cedar - 'Hillspire', 'Idyllwild', 'Blue Arrow', 'Taylor'	A													x	l-m		Will not take windy sites
<i>Juniperus virginiana</i>	Eastern Red - 'Manhattan Blue'	A													x	l-m	x	
<i>Larix decidua</i>	European Larch	B														m-h		
<i>Metasequoia glyptostroboides</i>	Dawn Redwood	C		x		x									x			
Picea			Spruce															
<i>Picea abies</i>	Norway - 'Cupressina'	B													x	m-h		Will not take windy sites; needs a more protected area
<i>Picea glauca</i>	Black Hills 'Densata'	A														m-h	x	
<i>Picea omorika</i>	Serbian	B		x		x										m-h	x	
<i>Picea pungens</i>	Colorado	A			x											m-h		Tussock moth in large trees
<i>Picea pungens glauca</i>	Colorado Blue - 'Baby Blue Eyes', 'Bakeri', 'Fastigiata', 'Fat Albert', 'Hoopsi', 'Colorado Weeping', 'Sester's Dwarf'	A			x											m-h		Possible IPS problem
Pinus			Pine															
<i>Pinus aristata</i>	Bristlecone(foxtail)	B				x										l-m		Slow growing
<i>Pinus bungeana</i>	Lacebark	C														m-h	x	
<i>Pinus cembra</i>	Swiss Stone Pine	C		x												l-m		
<i>Pinus contorta</i>	Lodgepole	B				x										l-m	x	Chlorosis at lower elevations; susceptible to mountain Pine Beetle
<i>Pinus edulis</i>	Pinyon	A				x										l-m		Pitch borer, tip moth, Pine Beetle.
<i>Pinus flexilis</i>	Limber	A														l-m		
<i>Pinus flexilis</i>	'Vanderwolf's Pyramid'	A														l-m		
<i>Pinus heldreichii</i>	Bosnian var. leucodermis	A												x		m	x	
<i>Pinus heldreichii</i>	Bosnian var. leucodermis - 'Emerald Arrow', 'Iseli Fastigiata'	C												x		m	x	
<i>Pinus monophylla</i>	Singleleaf Pinyon	C														l	x	
<i>Pinus mugo</i>	Mugo - 'Big Tuna','Tannenbaum'	A														l-m		
<i>Pinus nigra</i>	Austrian	A														m		Some Zimmerman Pine Moth
<i>Pinus nigra</i>	Austrian - 'Arnold's Sentinel'	D														m		
<i>Pinus ponderosa</i>	Ponderosa	B				x										l-m		Mountain Pine Beetle
<i>Pinus strobus</i>	Eastern White	B	x			x									x	m		Soil chlorosis-wind
<i>Pinus strobiformis</i>	Southwestern White	A														l-m		
<i>Pinus sylvestris</i>	Scotch	B				x		x								m	x	Mountain Pine Beetle
<i>Sequoiadendron giganteum</i>	Giant Sequoia - 'Hazel Smith'	C		x											x	m-h	x	
Taxodium distichum			Baldcypress															
<i>Taxodium distichum</i>	Baldcypress - 'Frio River'	C		x												m-h	x	
Thuja occidentalis			Eastern Arborvitae - 'Emerald', 'Techny', 'Degroots Spire'															
<i>Thuja occidentalis</i>		B													x	m-h		More protected area
<i>Thuja standishii x Thuja plicata</i>	Green Giant	B													x	m-h	x	More protected area



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