Trees for Conservation

a buyer's guide

Colorado State
FOREST
SERVICE

The Colorado State Forest Service tree program enables farmers, ranchers and rural landowners to obtain trees at nominal cost. The program's aim is to encourage landowners to plant new forests; establish effective windbreaks to reduce erosion, protect homes, cropland, livestock and highways; and enhance wildlife habitat. Our trees and shrubs are grown for their conservation benefits only. Ornamental qualities such as color, degree of flowering, fruit production and others are not guaranteed.

To participate, landowners must have at least two acres of land and must agree not to use the trees for ornamental or landscaping purposes. These trees and shrubs cannot be resold as living plants (the roots must be severed). Contact your local nursery for ornamental needs.

For information on ordering trees and application forms, contact your local soil conservation district, your local Extension county office, your district Colorado State Forest Service office (page vi), or the Colorado State Forest Service nursery.

Colorado State Forest Service

CSFS #115-1196

Many thanks to Dennis Will, Dan Wand, Greg Morgenson, Vince Urbina, Randy Moench and Mike Way for the fine photographs in this publication.

This publication was developed by the Colorado State Forest Service, Colorado State University, Fort Collins, CO 80523-5060.

Trees for Conservation
a buyer's guide

a catalog of conservation tree and shrub species grown
at the Colorado State Forest Service Nursery

Revised October 2008

Contents

Colorado State Forest Service Offices vi
Caragana 1
Cotoneaster 1
Chokecherry 2
Lilac 2
Native plum 3
Sumac (skunkbush) 3
Sand cherry 4
Nanking cherry 4
European sage 5
Wild rose 5
Buffaloberry 6
Four-wing saltbush 6
Golden currant 7
Serviceberry 7
Mountain mahogany 8
Red-osier dogwood 8
New Mexico forestiera (privet) 9
Snowberry 9
Wax currant 10
Green ash 10
Siberian elm 11
Hybrid cottonwood 11
Native willow mix 12
Golden willow 12
Hackberry 13
Honeylocust 13
Lombardy poplar 14
Bur oak 14
Coyote willow 15
Peachleaf willow 15
Prairie sky poplar 16
Gambel oak 16
Lanceleaf cottonwood 17
Aspen 17
Austrian pine 18
Colorado blue spruce 18
Douglas-fir 19
Engelmann spruce 19
Eastern redcedar 20
Lodgepole pine 20
Pinon pine 21
Ponderosa pine 21
Rocky Mountain juniper 22
Scotch pine 22
White fir 23
Bristlecone pine 23
Narrowleaf cottonwood 24
Freemont cottonwood 24
Limber pine 25
Subalpine fir 25

Colorado State Forest Service

Jeff J. Jahnke, State Forester
Colorado State University
Fort Collins, Colorado 80523-5060
(970) 491-6303

Alamosa District
Colorado State Forest Service
P. O. Box 1137
129A Santa Fe
Alamosa, CO 81101-1137
(719) 587-0915

Boulder District
Colorado State Forest Service
5625 Ute Highway
Longmont, CO 80503-9130
(303) 823-5774

Canon City District
Colorado State Forest Service
515 McDaniel Blvd., Industrial Park
Canon City, CO 81212-4164
(719) 275-6865

Durango District
Colorado State Forest Service
P. O. Box 7233
Fort Lewis College Campus
Durango, CO 81301-3908
(970) 247-5250

Fort Collins District
Colorado State Forest Service
Building #1052, Foothills Campus
Colorado State University
Fort Collins, CO 80523-5060
(970) 491-8660

Fort Morgan District
Colorado State Forest Service
P.O. Box 368
801 East Burlington
Fort Morgan, CO 80701-3638
(970) 867-5610

Franktown District
Colorado State Forest Service
2068 North State Highway 83
P. O. Box 485
Franktown, CO 80116-0485
(303) 660-9625

Golden District
Colorado State Forest Service
1504 Quaker Street
Golden, CO 80401-2956
(303) 279-9757

Granby District
Colorado State Forest Service
P. O. Box 69
201 E Jasper
Granby, CO 80446-0069
(970) 887-3121

Grand Junction District
Colorado State Forest Service
State Services Building
222 South 6th Street, Room 416
Grand Junction, CO 81501-2771
(970) 248-7325

Gunnison District
Colorado State Forest Service
P. O. Box 1390
Gunnison, CO 81230-1390
(970) 641-6852

La Junta District
Colorado State Forest Service
208 Santa Fe Avenue, Suite 21
La Junta, CO 81050-0977
(719) 384-9087

La Veta District
Colorado State Forest Service
P. O. Box 81
Moore & Poplar Streets
La Veta, CO 81055-0081
(719) 742-3588

Montrose District
Colorado State Forest Service
102 Par Place, Suite 1
Montrose, CO 81401-4196
(970) 249-9051

Salida District
Colorado State Forest Service
7980 West Highway 50
Salida, CO 81201-9571
(719) 539-2579

Steamboat Springs District
Colorado State Forest Service
P. O. Box 773657
1475 Pine Grove Road, Suite 201A
Steamboat Springs, CO 80477-3657
(970) 879-0475

Woodland Park District
Colorado State Forest Service
P. O. Box 9024
113 South Boundary
Woodland Park, CO 80866-9024
(719) 687-2921

CSFS Nursery
Colorado State Forest Service
Building 1060, Foothills Campus
Colorado State University
Fort Collins, CO 80523-5060
(970) 491-8429

10/08

Caragana

Caragana arborescens

Growth Form: irregular or hedgelike
Crown Density: dense
Size: 8-12 feet high
5-8 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 9,500 feet
Soil Conditions: good salt and alkaline tolerance
Possible Insect Problems: aphids and grasshoppers
Possible Disease Problems: very resistant
Wildlife Value: good: songbirds
Seasonal Color: yellow spring flowers
Miscellany: does well in poor soils

Cotoneaster

Cotoneaster acutifolia

Growth Form: ovoid to irregular
Crown Density: dense
Size: 6-8 feet high
3-5 foot spread
Drought Resistance: very good
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 9,500 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: oyster shell scale
Possible Disease Problems: fireblight; fairly resistant
Wildlife Value: high: song and game birds
Seasonal Color: brilliant red-orange foliage
Miscellany: can be clipped to a hedge

Chokecherry

Prunus virginiana

Growth Form: ovoid to irregular
Crown Density: moderate
Size: 6-20 feet high
6-20 foot spread
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 9,000 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: borers, pear-slug sawfly
Possible Disease Problems: black knot, fireblight
Wildlife Value: high: song and ground birds; good: small mammals, and browse for deer
Seasonal Color: golden yellow to orange fall foliage
Miscellany: delicious edible fruit for jellies and pies; native; can be poisonous to livestock

---

Lilac

Syringa spp.

var. villosa lilac

common lilac

Growth Form: round to irregular
Crown Density: dense
Size: 8-12 feet high
8-12 foot spread
Drought Resistance: very good
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: lilac borer, leaf miners, oyster shell scale
Possible Disease Problems: lilac leaf blotch, powdery mildew, some leaf spots
Wildlife Value: moderately high: songbirds; cover value
Seasonal Color: fragrant purple or white spring flowers
Miscellany: develops into a dense barrier

Native plum

Prunus americana

Growth Form: irregular
Crown Density: open
Size: to 8 feet high
to 8 foot spread
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: pear-slug sawfly
Possible Disease Problems: fireblight, powdery mildew
Wildlife Value: excellent: hoofed browsers; nesting cover and food value
Seasonal Color: large white flowers in May
Miscellany: native; delicious edible fruit for jellies and canning; forms a thicket

---

Sumac (skunkbush)

Rhus trilobata

Growth Form: irregular
Crown Density: dense
Size: to 4 feet high
to 8 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: rapid to moderate
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: excellent alkaline tolerance
Possible Insect Problems: fairly resistant
Possible Disease Problems: Fusarium wilt
Wildlife Value: excellent: many birds
Seasonal Color: red-orange fall foliage
Miscellany: native; berries have slight lemon taste when rolled under tongue

Sand cherry

Prunus besseyi

Growth Form: spreading
Crown Density: moderate
Size: 3 feet high
4 foot spread
Drought Resistance: good
Cold Hardiness: good
Growth Rate: rapid
Life Span: short
Elevational Range: to 7,500 feet
Soil Conditions: best on sandy to loamy soils
Possible Insect Problems: pear slug; fall web worm
Possible Disease Problems: powdery mildew
Wildlife Value: excellent: browse and food value
Seasonal Color: pink flowers
Miscellany: native; edible fruit

Nanking cherry

Prunus tomentosa

Growth Form: round to irregular
Crown Density: moderate
Size: to 8 feet high
to 8 foot spread
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: tent caterpillars, bark beetles
Possible Disease Problems: shot-hole leaf spot, black knot
Wildlife Value: high: song and game birds
Seasonal Color: white flowers in spring
Miscellany: delicious edible fruit for jellies; blooms early

European sage

Artemesia abrotanum

Growth Form: round to irregular
Crown Density: open
Size: to 8 feet high
to 8 foot spread
Drought Resistance: very good
Cold Hardiness: good
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 6,000 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: fairly resistant
Possible Disease Problems: fairly resistant
Wildlife Value: fair; cover and browse value

Wild rose

Rosa spp.

Growth Form: irregular
Crown Density: open
Size: 4 feet high, spreading
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 10,000 feet
Soil Conditions: moist
Possible Insect Problems: leaf cutter bees
Wildlife Value: excellent: big game browse and food value;
relished by grouse, turkey and pheasant
Seasonal Color: not conspicuous
Miscellany: native; showy flowers; suckers and spreads

Buffaloberry

Shepherdia argentea

Growth Form: round to irregular
Crown Density: dense
Size: 10 feet high; spreading
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: moderate
Life Span: long
Elevational Range: to 7,500 feet
Soil Conditions: tolerates alkaline
Possible Insect Problems: unimportant
Possible Disease Problems: unimportant
Wildlife Value: good: food value; excellent: cover for small game and songbird nesting
Seasonal Color: not conspicuous
Miscellany: native; edible fruit for jellies; forms thickets

Four-wing saltbush

Atriplex canascens

Growth Form: round to irregular
Crown Density: moderate
Size: 3 feet high
5 foot spread
Drought Resistance: excellent
Cold Hardiness: good
Growth Rate: moderate
Life Span: long
Elevational Range: to 8,500 feet
Soil Conditions: excellent alkali and salt tolerance
Possible Insect Problems: grasshoppers
Wildlife Value: good: forage value
Seasonal Color: mature seed makes fine contrast
Miscellany: native

Golden currant

Ribes aureum

Growth Form: round to irregular
Crown Density: moderate
Size: 7 feet high
3 foot spread
Drought Resistance: good
Cold Hardiness: good
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: moist
Possible Insect Problems: imported currant worm, oyster shell scale
Possible Disease Problems: blister rust
Wildlife Value: good: food and browse value; nesting cover
Seasonal Color: red to orange fall color; showy yellow flowers
Miscellany: native; edible fruit

Serviceberry

Amelanchier spp.

Growth Form: ovoid to irregular
Crown Density: moderate
Size: 6 feet high
5 foot spread
Drought Resistance: fair
Cold Hardiness: excellent
Growth Rate: moderate
Life Span: long
Elevational Range: to 9,000 feet
Soil Conditions: moist
Possible Insect Problems: pear slug
Possible Disease Problems: leaf spots and rust
Wildlife Value: excellent: big game browse; food value for upland game
Seasonal Color: showy white flowers
Miscellany: native; edible fruit; showy flowers

Mountain mahogany

Cercocarpus montanus

Growth Form: irregular
Crown Density: dense
Size: 6 feet high
5 foot spread
Drought Resistance: excellent
Cold Hardiness: good
Growth Rate: moderate
Life Span: moderate
Elevational Range: to 9,000 feet
Soil Conditions: tolerates alkaline; well-drained
Possible Insect Problems: tent caterpillars
Possible Disease Problems: unimportant
Wildlife Value: high: big game browse; cover for small game birds and mammals
Seasonal Color: not conspicuous
Miscellany: native; seed showy in fall

Red-osier dogwood

Cornus serica

Growth Form: irregular
Crown Density: open
Size: to 8 feet high
to 6 foot spread
Drought Resistance: fair
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 11,000 feet
Soil Conditions: not suited for dense clays
Possible Insect Problems: dogwood sawfly, polyphemus moth, oystershell scale
Possible Disease Problems: cytospora canker
Wildlife Value: excellent: grouse, pheasant, turkey, grosbeak, robin, cedar waxwing
Seasonal Color: vivid red fall foliage and stems. Showy white flowers and berries
Miscellany: for moist sites such as streamside riparian areas

Dogwood close-up courtesy Natural Resources Conservation Service

New Mexico forestiera (privet)

Forestiera neomexicana

Growth Form: irregular
Crown Density: dense
Size: 10 feet high
Drought Resistance: excellent
Cold Hardiness: good
Growth Rate: moderate
Life Span: long
Elevational Range: to 7,500 feet
Soil Conditions: moist; alkaline tolerance
Possible Insect Problems: unimportant
Possible Disease Problems: unimportant
Wildlife Value: good; fruit valuable to quail, songbirds; excellent: cover
Seasonal Color: not conspicuous
Miscellany: native; bluish-black fruit; yellow flowers

Snowberry

Symphoricarpos spp.

Growth Form: irregular
Crown Density: open
Size: 3 feet high
Drought Resistance: fair
Cold Hardiness: excellent
Growth Rate: moderate
Life Span: moderate
Elevational Range: to 9,500 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: aphids
Possible Disease Problems: leaf spot, anthracnose, rust, powdery mildew
Wildlife Value: good: food and cover for turkey, grouse, and other small game
Seasonal Color: white fruit
Miscellany: native

Wax Currant

Ribes cereum

Growth Form: irregular
Crown Density: moderate
Size: 3 feet high
3-5 foot spread
Drought Resistance: very good
Cold Hardiness: very good
Growth Rate: rapid
Life Span: moderate
Elevational Range: 4000-11000 feet
Soil Conditions: coarse and medium textured soils
Possible Insect Problems:
Possible Disease Problems: alternate host for white pine blister rust
Wildlife Value: high
Seasonal Color: attractive red fruit
Miscellany: native, edible fruit

Green ash

Fraxinus pennsylvanica

Growth Form: irregular to elliptical
Crown Density: moderate
Size: 35-75 feet high
15-35 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: long
Elevational Range: to 6,000 feet
Soil Conditions: good alkaline tolerance
Possible Insect Problems: ash borer, oyster shell scale, ash sawfly
Possible Disease Problems: occasional powdery mildew
Wildlife Value: fair: game and songbirds
Seasonal Color: golden-yellow fall foliage
Miscellany: native; does best in sandy, loam soils

Siberian elm

Ulmus pumila

Growth Form: irregular
Crown Density: moderate
Size: to 40 feet high
30-40 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: tolerates alkaline well
Possible Insect Problems: elm leaf beetle
Possible Disease Problems: bacterial wetwood
Wildlife Value: moderate: song and game birds (seeds and buds)
Seasonal Color: not conspicuous
Miscellany: hardiest of all elms; can be weedy

Hybrid cottonwood (poplar)

Populus spp.

Growth Form: globular to irregular
Crown Density: moderate
Size: 75-100 feet high
50-75 foot spread
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 6,500 feet
Possible Insect Problems: leaf miners, fall webworm, poplar borers, oyster shell scale
Possible Disease Problems: cytospora canker; bacterial wetwood, Marssonina leaf blight
Wildlife Value: fair: nesting and roosting cover
Miscellany: "Norway" male clone, will produce male flowers. No guarantee on degree of "cotton" production

Native willow mix

Salix spp.

Growth Form: irregular
Crown Density: dense
Size: to 12 feet high; spreading
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational range: to 9,500 feet
Soil Conditions: moist
Possible Insect Problems: willow and poplar borers; sawfly galls
Possible Disease Problems: leaf rust
Wildlife Value: high: food and cover for birds, browse value for deer, elk and moose
Seasonal Color: not conspicuous
Miscellany: a mix of whiplash (Pacific), strapleaf, and coyote willows, native, suckers and spreads, species mix may vary from year to year

---

Golden willow

Salix alba vitellina

Growth Form: globular to spreading
Crown Density: moderate
Size: to 35 feet high
to 35 foot spread
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000 feet
Soil Conditions: tolerates alkaline and salts well
Possible Insect Problems: aphids
Possible Disease Problems: cytospora canker; bacterial wetwood
Wildlife Value: moderate: song and game birds; food value for buds and twigs
Seasonal Color: orange-yellow bark on young growth in winter
Miscellany: requires moist soil

Hackberry
Celtis occidentalis

Growth Form: globular
Crown Density: moderate
Size: 40-60 feet high
40-60 foot spread
Drought Resistance: very good
Cold Hardiness: very good
Growth Rate: rapid to moderate
Life Span: long
Elevational Range: to 7,000 feet
Soil Conditions: tolerates alkaline well; moderately salt tolerant
Possible Insect Problems: leaf gall psyllids; spiny elm caterpillar; nipple gall always present
Possible Disease Problems: hackberry witches' broom
Wildlife Value: high: songbirds and small mammals
Seasonal Color: pale lemon-yellow foliage in fall
Miscellany: native; wood of commercial value

Honeylocust
Gleditsia triacanthos inermis

Growth Form: irregular, spreading
Crown Density: open, fine-textured
Size: 35-75 feet high
15-50 foot spread
Drought Resistance: very good
Cold Hardiness: very good
Growth Rate: rapid
Life Span: moderate to long
Elevational Range: to 7,500 feet
Possible Insect Problems: pod gall midge; scale insects
Possible Disease Problems: thyronectria canker; sunscald; cytospora canker
Wildlife Value: low
Miscellany: usually thornless

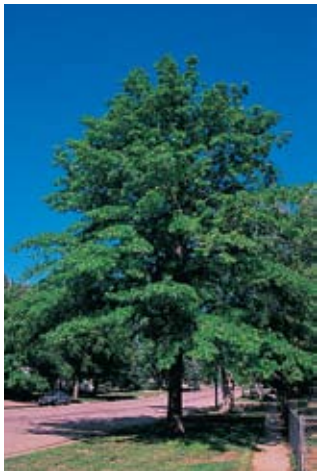
Lombardy poplar

Populus nigra 'Italica'

Growth Form: columnar to ovoid
Crown Density: moderate
Size: to 40 feet high
10-15 foot spread
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: short
Elevational Range: to 8,000 feet
Possible Insect Problems: fall webworm
Possible Disease Problems: bacterial wetwood; cytospora canker
Wildlife Value: low
Miscellany: best for temporary protection only

Bur oak

Quercus macrocarpa



Growth Form: globular
Crown Density: moderate
Size: to 75 feet high
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: slow
Life Span: very long
Elevational Range: to 7,000 feet
Soil Conditions: tolerates alkaline well
Possible Insect Problems: scales, gall wasps
Wildlife Value: excellent: acorn food value for birds and mammals
Seasonal Color: not conspicuous
Miscellany: can live more than 200 years

Coyote willow

Salix exigua

Growth Form: irregular
Crown Density: dense
Size: to 10 feet high; spreading
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: short
Elevational Range: to 9,500 feet
Soil Conditions: moist
Possible Insect Problems: willow and poplar borers; sawfly galls
Possible Disease Problems: leaf rust
Wildlife Value: high: food and cover for birds; browse value for deer, elk and moose
Seasonal Color: not conspicuous
Miscellany: native; suckers and spreads

Peachleaf willow

Salix amygdaloides

Growth Form: irregular
Crown Density: open
Size: to 40 feet high
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational range: to 9,500 feet
Soil Conditions: moist
Possible Insect Problems: willow and poplar borers
Possible Disease Problems: cytospora canker, leaf rust
Wildlife Value: high: food and cover for birds, browse value for deer, elk & moose
Seasonal Color: not conspicuous
Miscellany: native

Prairie Sky Cottonwood

Populus x canadensis 'Prairie Sky'

Growth Form: columnar
Crown Density: moderate
Size: 50 feet high
10 foot spread
Drought Resistance: low
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 8,000
Soil Conditions: Adapted to coarse and medium textured soils
Possible Insect Problems: Cottonwood leaf beetle
Possible Disease Problems: Good canker resistance
Wildlife Value: low
Seasonal Color: not conspicuous
Miscellany: usually cottonless

Gambel Oak

Quercus gambelii

Growth Form: irregular
Crown Density: moderate
Size: 4 to 15 feet high
Spread variable
Drought Resistance: Low
Cold Hardiness: Good
Growth Rate: Slow
Life Span: Long
Elevational Range: 4100 to 9000
Soil Conditions: Adapted to coarse and medium textured soils
Possible Insect Problems: gall wasps
Possible Disease Problems: anthracnose
Wildlife Value: High
Seasonal Color: not conspicuous
Miscellany: native though can be regarded as weedy in some areas

Lanceleaf Cottonwood

Populus x acuminata

Growth Form: irregular
Crown Density: moderate
Size: 40 to 60 feet high
25 foot spread
Drought Resistance: low
Cold Hardiness: good
Growth Rate: rapid
Life Span: moderate
Elevational Range: 4000 to 8500
Soil Conditions: adapted to coarse soils
Possible Insect Problems: borers
Possible Disease Problems: cankers
Wildlife Value: Low
Seasonal Color: Can have attractive yellow leaves in fall
Miscellany: male flowers

Aspen

Populus tremuloides

Growth Form: ovoid to columnar
Crown Density: open
Size: 35-50 feet high
20-35 foot spread
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: to 11,000 feet
Possible Insect Problems: poplar borer, scale, tent caterpillar, twig gall fly
Possible Disease Problems: cytospora canker, leaf spot
Wildlife Value: high: buds and catkins for food value for grouse and browsers
Seasonal Color: yellow fall color
Miscellany: native

Austrian pine

Pinus nigra

Growth Form: pyramidal
Crown Density open
Size: to 40 feet high
to 30 foot spread
Drought Resistance: excellent
Cold Hardiness: fair
Growth Rate: slow
Life Span: long
Elevational Range: to 7,000 feet
Soil Conditions: tolerates alkaline well
Possible Insect Problems: pine tip moth
Possible Disease Problems: fairly resistant
Wildlife Value: high: song and ground birds, food value from seeds
Seasonal Color: evergreen
Miscellany: forms a good screen

Colorado blue spruce

Picea pungens

Growth Form: conical
Crown Density: dense
Size: 60-100 feet high
15-35 foot spread
Drought Resistance: fair
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: to 9,500 feet
Soil Conditions: fair alkaline tolerance
Possible Insect Problems: pine needle scale, tussock moth, terminal weevil, gall aphids
Possible Disease Problems: Valsa canker, spruce witches' broom
Wildlife Value: high: song and ground birds and grouse; hoofed and small browsers
Seasonal Color: bluish evergreen
Miscellany: native; Colorado's state tree; high ornamental value

Douglas-fir

Pseudotsuga menziesii

Growth Form: conical to pyramidal
Crown Density: dense
Size: 70-100 feet high
20-35 foot spread
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: 6,000 to 9,000 feet
Possible Insect Problems: spruce budworm
Possible Disease Problems: shoestring root rot; Douglas-fir mistletoe, bacterial gall
Wildlife Value: high: food value for grouse, songbirds and small mammals; browse for deer and elk
Seasonal Color: evergreen
Miscellany: native

Engelmann spruce

Picea engelmannii

Growth Form: conical to spirelike
Crown Density: dense
Size: 70-90 feet high
15-30 foot spread
Drought Resistance: very good
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: 8,000 to 11,000 feet
Possible Insect Problems: spruce bark beetle, spruce budworm
Possible Disease Problems: root rot, spruce broom rust
Wildlife Value: high: food value for grouse and songbirds; browse for deer and elk
Seasonal Color: evergreen
Miscellany: native; intolerant of direct sun, requires shade

Eastern redcedar

Juniperus virginiana

Growth Form: pyramidal to irregular
Crown Density: dense
Size: 15-20 feet high
10-20 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: to 7,500 feet
Soil Conditions: tolerates alkaline and salts well
Possible Insect Problems: spider mites
Possible Disease Problems: rust
Wildlife Value: high: song and game birds; hoofed browsers, good cover
Seasonal Color: rusty red
Miscellany: very adaptable to site conditions

Lodgepole pine

Pinus contorta

Growth Form: conical to spirelike
Crown Density: open
Size: 35-70 feet high
15-30 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: 6,000 to 11,000 feet
Possible Insect Problems: mountain pine beetle
Possible Disease Problems: mistletoe, western gall rust
Wildlife Value: high: food value from seeds for upland game and songbirds
Seasonal Color: evergreen
Miscellany: native; good conifer for high altitude windbreaks

Pinon pine

Pinus edulis

Growth Form: rounded to irregular
Crown Density: dense
Size: 15-30 feet high
15-30 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: slow
Life Span long
Elevational Range: to 7,500 feet
Possible Insect Problems: pinon pitch borer, ips, spindle gall midge
Possible Disease Problems: black stain root disease, mistletoe
Wildlife Value: high: food value from seeds for upland game and songbirds
Seasonal Color: evergreen
Miscellany: native

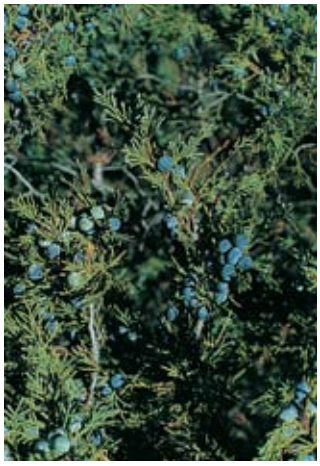
Ponderosa pine

Pinus ponderosa

Growth Form: conical to ovoid
Crown Density: moderately dense
Size: 40-100 feet high
15-60 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: rapid to moderate
Life Span: long
Elevational Range: to 9,000 feet
Soil Conditions: tolerates alkaline well
Possible Insect Problems: sawflies, bark beetle, tip moth
Possible Disease Problems: western gall rust; dwarf mistletoe, shoestring root rot
Wildlife Value: high: song and ground birds, small mammals, browsers
Seasonal Color: evergreen
Miscellany: native; needs well-drained soils

Rocky Mountain juniper

Juniperus scopulorum



Growth Form: pyramidal to irregular
Crown Density: dense
Size: 15-50 feet high
10-35 foot spread
Drought Resistance: excellent
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: to 9,000 feet
Soil Conditions: excellent alkaline tolerance
Possible Insect Problems: spider mites, bark beetles
Possible Disease Problems: juniper broom rust, juniper gall rusts, juniper true mistletoe
Wildlife Value: high: song and ground birds, large browsing mammals
Seasonal Color: evergreen
Miscellany: native

Scotch pine

Pinus sylvestris

Growth Form: pyramidal to ovoid
Crown Density: open
Size: 40-65 feet high
20-40 foot spread
Drought Resistance: very good
Cold Hardiness: very good
Growth Rate: rapid
Life Span: long
Elevational Range: to 7,000 feet
Soil Conditions: tolerates alkaline
Possible Insect Problems: tip moths, ips beetles
Possible Disease Problems: fairly resistant
Wildlife Value: high: food value for upland game and song birds
Seasonal Color: evergreen
Miscellany: makes an excellent Christmas tree

White fir

Abies concolor

Growth Form: conical
Crown Density: dense
Size: 60-100 feet high
20-35 foot spread
Drought Resistance: very good
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: 6,000 to 9,000 feet
Possible Insect Problems: spruce budworm, Douglas-fir tussock moth
Possible Disease Problems: needlecast, root rot
Wildlife Value: moderate: food source and winter cover for grouse and songbirds
Seasonal Color: bluish evergreen
Miscellany: native

Bristlecone pine

Pinus aristata

Growth Form: irregular
Crown Density: open
Size: 20-40 feet high
Drought Resistance: fair
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: to 11,000 feet
Possible Insect Problems: bark beetles
Possible Disease Problems: white pine blister rust
Wildlife Value: high: food value from seeds for upland game and songbirds
Seasonal Color: evergreen
Miscellany: native

Narrowleaf cottonwood

Populus angustifolia

Growth Form: ovoid to irregular
Crown Density: moderate
Size: to 50 feet high
to 30 foot spread
Drought Resistance: fair
Cold Hardiness: excellent
Growth Rate: rapid
Life Span: moderate
Elevational Range: 5,000 to 9,500 feet
Soil Conditions: tolerates alkaline well
Possible Insect Problems: blotchmine beetle
Possible Disease Problems: cytospora canker; bacterial wetwood
Wildlife Value: moderate: nesting and roosting cover; buds catkins and twigs for food value
Seasonal Color: yellow
Miscellany: native; very weak wood

Fremont Cottonwood

Populus fremontii

Growth Form: spreading
Crown Density: moderate
Size: 50-90 feet high
35 foot spread
Drought Resistance: Medium
Cold Hardiness: Fair
Growth Rate: Rapid
Life Span: Moderate
Elevational Range: 4000 to 7000 feet
Soil Conditions: adapted to a variety of soil types
Possible Insect Problems: cottonwood leaf beetle
Possible Disease Problems: mistletoe
Wildlife Value: low
Seasonal Color: attractive yellow
Miscellany: native of Western Colorado, not cottonless

Limber pine

Pinus flexilis

Growth Form: conical to ovoid
Crown Density: open
Size: to 35 feet high
Drought Resistance: good
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: to 11,000 feet
Soil Conditions: well-drained
Possible Insect Problems: bark beetles
Possible Disease Problems: mistletoe
Wildlife Value: high: food value from seeds for upland game and songbirds
Seasonal Color: evergreen
Miscellany: native

Subalpine fir

Abies lasiocarpa

Growth Form: conical to spire-like
Crown Density: moderate
Size: 60-100 feet high
10 to 20 foot spread
Drought Resistance: poor
Cold Hardiness: excellent
Growth Rate: slow
Life Span: long
Elevational Range: 8,000 to 11,000 feet
Possible Insect Problems: balsam bark beetle, western spruce budworm, fir engraver
Possible Disease Problems: armillaria root disease, annosus root rot
Wildlife Value: fair: grouse, nutcracker, sapsucker, deer, elk, moose
Seasonal Color: distinctive black/purple cones
Miscellany: native, not suited to lower elevations, requires shade

Photos courtesy Forest Service Canada