Trees for Conservation



a buyer's guide



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.



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

iv

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 currant1	0
Green ash1	0
Siberian elm1	1
Hybrid cottonwood1	1
Native willow mix 1	2
Golden willow 1	2
Hackberry1	3

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





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







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







var. villosa lilac

common lilac







Lilac Syringa spp.

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

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









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







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

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







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'







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







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

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







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

Growth Form: ovoid to irregular **Crown Density:** moderate

Populus angustifolia



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



