



*Recommended Trees
for the San Luis Valley
Communities of Colorado*

A Guide for Selecting, Planting, and Caring For Trees



Do Not Top Your Trees!



Trees that have been topped may become hazardous and unsightly.



<http://csfs.colostate.edu/>



www.coloradotrees.org



www.fs.fed.us

Avoid topping trees. Topping leads to:

- Starvation
- Shock
- Insects and diseases
- Weak limbs
- Rapid new growth
- Tree death
- Ugliness
- Increased maintenance costs

Special thanks to the International Society of Arboriculture for providing details and drawings for this brochure.

Trees to avoid!

Selecting the right tree for the right place can help reduce the potential for catastrophic loss of trees by insects, disease or environmental factors. We can't control the weather, but we can use discernment in selecting trees to plant. A variety of tree species should be planted so no single species represents more than 10-15 percent of a community's total tree population. Many trees are not recommended because of brittle wood, susceptibility to insects and diseases, or their ability to spread in to native ecosystems and out-compete native species, while others simply do not grow well in our climate. The following is a list of tree species **NOT** recommended for the San Luis Valley of Colorado:

Species **NOT** recommended:

Austree (*Salix alba* x *matsudana*)

Silver maple (*Acer saccharinum*)

Russian-olive (*Elaeagnus angustifolia*)

Tree-of-Heaven (*Ailanthus altissima*)

Tamarisk (*Tamarix* spp.)

White-Barked Birches (*Betula* spp.)

Non-native hybrid poplars/cottonwoods (*Populus* spp.)

Siberian elm (*Ulmus pumila*)

American plum (*Prunus americana*)

Tree Selection

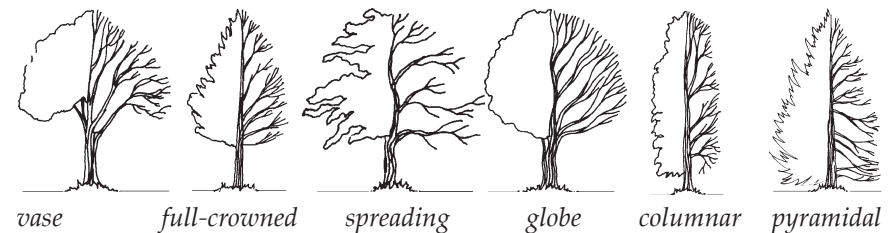
Tree selection is one of the most important investment decisions a home owner makes when landscaping a new home or replacing a tree lost to damage or disease. Most trees can outlive the people who plant them, therefore the impact of this decision is one that can influence a lifetime. Matching the tree to the site is critical; the following site and tree demands should be considered before buying and planting a tree.

Site Considerations

- Available space above **and** below ground
- Water availability
- Drainage
- Soil texture and pH
- Sunlight levels/exposure
- Exposure to weather and other environmental factors

Tree Considerations

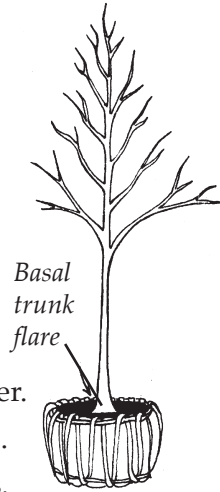
- Growth rate of the species selected
- Tolerance of tree to alkaline or acidic soils
- Mature size
- Form
- Hardiness – ability of a plant to survive low temperatures
- Heat tolerance and drought tolerance
- Pest resistance
- Maintenance issues
- Native vs. non-native species



Selecting Trees at the Nursery

When you buy a high-quality tree, plant it correctly, and treat it properly, so you and your tree will benefit greatly for many years. When you buy a low-quality tree, you and your tree will have many costly problems even if you take great care in planting and maintenance. Consider the following when selecting a tree at the nursery:

- Tree should appear healthy. No discolored bark, wilted leaves, etc.
- Branches should be spaced evenly around the trunk
- Tree trunk should taper from a solid base, gradually becoming more slender towards the top.
- Tree foliage and branches should be distributed on upper 2/3 of tree.
- Tree should contain a central, dominant leader.
- Tree should be free from mechanical damage.
- Tree should be free from insects and diseases.
- Roots should not be girdling, circling or potbound.



Tree Planting Tips

- Plant the top of the root ball slightly above ground level. The root collar (flare) must be visible one inch above final grade.
- Set root ball on **solid** ground and not on loose backfill in the hole; this will eliminate settling.
- Remove the entire wire basket from balled and burlapped trees or at a minimum remove the top 1/2 of all wire baskets.
- Completely remove containers from containerized stock.
- Adding peat moss or manure to soil in the planting hole is **not** necessary. (Too much can cause a “potted tree” effect and restrict root growth.) Backfill hole with original soil.

Small Evergreens (15 - 25 feet mature height)

Piñon pine* (*Pinus edulis*)

Native, dense, bushy pine, short grayish-green needles, prefers dry sites, tolerant of alkaline soils but not excessive water. 20' tall, Zone 3

Bristlecone pine* (*Pinus aristata*)

Native, bushy, dark green needles with resin flecks, very slow growing. Naturally found on rocky sites, no alkaline soils. 35' tall, Zone 2

Rocky Mountain juniper* (*Juniperus scopulorum*)

Native, very hardy tree, gray-green foliage, alkali and drought tolerant, nursery selections with different features available. 20' tall, Zone 3



Rocky Mountain Juniper

Black Hills spruce (*Picea glauca 'Densata'*)

Very hardy tree, dense, pyramidal form, short dark green needles. Slightly alkaline tolerant. 30' tall, Zone 2

Limber pine (*Pinus flexilis*)

Native, grows naturally on exposed windy sites, needles in groups of five, foliage is light green with white streaks. 30' tall, Zone 2

Large Evergreens

(30 - 60 feet mature height)
Do not use as street trees!

Colorado blue spruce (*Picea pungens*)

The state tree and a native, sharp stiff needles, color of needles range from bright green to silver blue. 55' tall by 30' wide, Zone 2



Austrian pine* (*Pinus nigra*)

Long needle pine, plant in protected site, tolerant of dry, alkaline soils. 40' tall, Zone 3

Concolor (white) fir* (*Abies concolor*)

Native, long soft blue-green needles, plant in a protected site, shade and drought tolerant. 55' tall, Zone 3



Lodgepole pine (*Pinus contorta*)

Native, drought resistant, cold-hardy, shallow roots, prefers higher elevations. 50' tall, Zone 2

Ponderosa pine* (*Pinus ponderosa*)

Native, long needles, intolerant of clay & alkaline soils. 50' tall, Zone 3



Douglas-fir (*Pseudotsuga menziesii*)

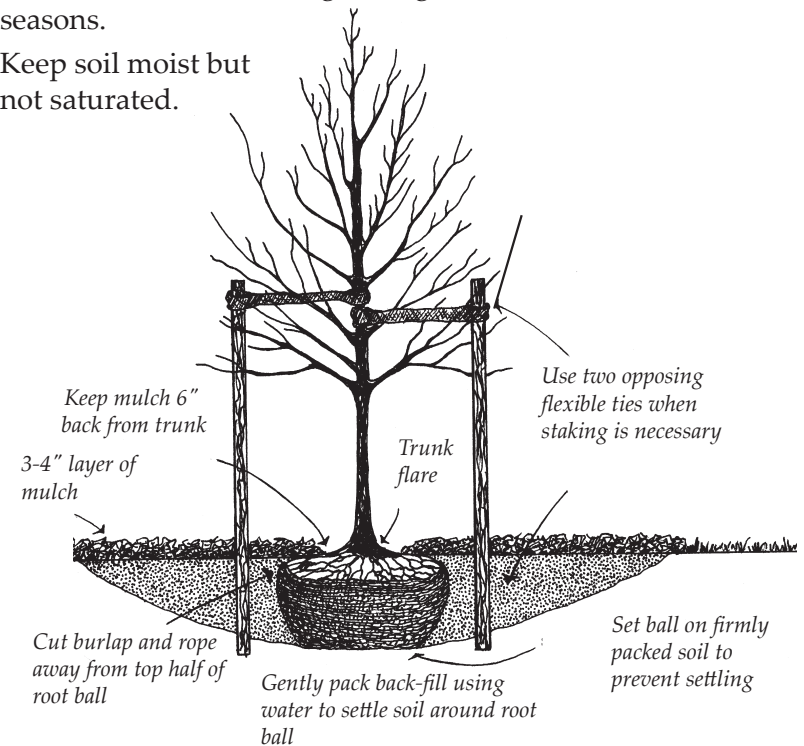
Native to higher elevations, soft, dark blue-green needles, intolerant of alkaline soils and high winds. 55' tall, Zone 2

Engelmann spruce (*Picea engelmannii*)

Native to higher elevations, very dense foliage, upright growth habit, intolerant of alkaline soils or high winds. 55' tall, Zone 2



- Do not fertilize at planting time.
- Optimum planting periods are from March 15 to June 15 and from September 1 to October 15.
- Use mulch 3–4 inches deep, pull back 6 inches from the trunk of the tree, and extend the mulch ring one foot beyond the root ball. This will protect roots, hold soil moisture, reduce weed growth, and provide a protective strip to eliminate mechanical damage from lawnmowers and weedeaters. Do **not** use plastic under mulch. Keep grass and weeds out of mulched area as they compete for the same resources as your new tree.
- If necessary, stake tree properly to keep root ball from shifting. Main tree stem must be able to sway slightly; if it is too rigid, root growth, diameter of stem, and height growth will be adversely affected.
- Use wide straps for tying trees to stakes. Do **not** use wire, string, rope, or rubber hose around tree.
- Remove stakes and straps after roots are established, usually a maximum of one or two growing seasons.
- Keep soil moist but not saturated.



Tree Watering

The correct amount of water is the most important factor in ensuring proper tree establishment. Too much water can be just as damaging to a newly planted tree as too little water, so be sure to periodically check soil moisture by examining the soil in the area of the roots. Follow these recommendations to help your tree establish in the landscape:

- **Water deeply and slowly.** Apply water so it moistens the critical root zone (from near the trunk of the tree to the dripline) to a depth of twelve inches. Methods for watering include a deep root fork or needle, soaker hose or soft spray wand. Apply water to many locations under the dripline. If a deep root fork or needle is used, insert the device no deeper than eight inches into the soil.
- **Consistent moisture is essential.** Maintaining consistent soil moisture allows for better root water absorption. Drought stressed or over-watered trees are more vulnerable to disease and insect infestations, as well as branch dieback.
- **When should I water?** Generally, water a newly planted tree every 3-5 days during the growing season, depending on weather and soil conditions. Remember that newly planted trees need water during dry periods in the winter months as well. Try to water at least once a month in the dormant season.
- **How much water should I apply?** Utilize the following “rule of thumb” for watering: apply 10 gallons of water per inch of tree diameter, for instance a 1 inch tree will require 10 gallons of water each time it is watered. For mature trees 10 inches in diameter or more, apply 15 gallons of water per inch of tree diameter. Use a ruler to measure your tree’s diameter.
- **Mulch helps conserve soil moisture.** Mulch is **critical** to conserve soil moisture. Apply organic mulch within the dripline, at a depth of three to four inches. It’s best to eliminate turf prior to adding mulch. Leave a six-inch space between the mulch and trunk of trees. Mulch materials may include wood chips, bark, leaves and evergreen needles.

Crabapple species* (*Malus spp.*)

Flowers in the spring, most varieties produce fruit, most are soil tolerant. Radiant, Dolgo, and Thunderchild are good choices. 20’ tall, Zone 3

Tatarian Maple* (*Acer tataricum*)

Hardy, alkaline tolerant tree with pink, winged seeds in early spring and orange to red fall leaf color. 20’ tall, Zone 3

Serviceberry* (*Amelanchier spp.*)

Small trees or tall shrub. Small, white flowers, orange to red fall leaf color, red to purple, edible fruit. 15’ tall, Zone 3

Gambel (scrub) oak* (*Quercus gambelii*)

Native, very hardy, usually found in large clumps, produces small acorns, orange fall color. 20’ tall, Zone 3

Canyon maple* (*Acer grandidentatum*)

Rocky Mountain native, usually multi-stemmed in form, small wing-shaped seeds, orange fall leaf color. 25’ tall, Zone 3

Russian hawthorn (*Crataegus ambigua*)

Hardy, soil tolerant, white flowers followed by maroon colored fruit in the fall, small thorns. Single or multi-stemmed tree. 20’ tall, Zone 3

Ussurian pear (*Pyrus ussuiensis*)

Large, white flowers in spring, fall color can be burgundy red, some selection available, fire blight resistant. 25’ tall, Zone 3

European mountain-ash (*Sorbus aucuparia*)

Dark green, pinnately compound leaves, creamy, white flowers followed by clusters of orange-red fruit relished by birds. 25’ tall, Zone 3

Canada red cherry* (*Prunus virginiana 'Canada red'*)

White flowers, small fruit, new growth is bright green and turns maroon. Can sucker profusely. 20’ tall, Zone 2



Ussurian pear



European mountain-ash

Sensation boxelder (*Acer negundo* 'Sensation')
Soil tolerant, seedless, does not attract boxelder bugs, orange-red fall color, balanced branching habit. 45' tall, Zone 2

Fallgold Ash (*Fraxinus nigra* 'Fallgold')
Oval, upright form, alkali tolerant, prefers moister site, yellow fall color. 45' tall, Zone 3

Weeping willow (*Salix alba* 'Tristis')
Fast growing, long hanging branches, golden bark, large tree, needs a lot of room. 55' tall, Zone 4



Fallgold Ash



Weeping Willow

Medium Shade Trees (30 - 45 feet mature height)

Purple robe locust (*Robinia pseudoacacia* 'Purple Robe')
Upright habit, compound leaves, striking magenta flowers in early summer, sometimes affected by borers. 30' tall, Zone 3

Aspen (*Populus tremuloides*)
Native, cold-hardy tree with yellow fall color, susceptible to bugs and disease, does sucker, not good yard tree. 30' tall, Zone 2

Thinleaf alder (*Alnus tenuifolia*)
Native tree, upright habit, yellow fall color, does well in wet areas, cone-like seed pod persists through winter. 30' tall, Zone 2



Aspen

Small Ornamental Trees (<25 feet mature height)

New Mexico locust (*Robinia neomexicana*)
Small tree, tolerates alkaline soils, small thorns, pink flowers, can sucker at the base. 25' tall, Zone 3

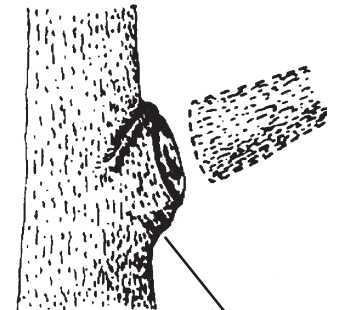
Chokecherry* (*Prunus virginiana*)
Native, white flowers, dark, purple, edible fruit, found on moist sites. Suckers at base. 20' tall, Zone 2

Tree Pruning

Limit pruning of newly planted trees to corrective pruning. Remove torn or broken branches (save other pruning measures for the second or third year). Once the tree has established a good root system after planting (usually within 1 to 3 years), proper pruning is essential in developing a tree with a strong structure and desirable form. Trees that receive the appropriate pruning measures while they are young will require little corrective pruning when they mature.

Location of a pruning cut is critical to a tree's response in growth and wound closure. Pruning cuts should be made just outside the branch collar. Since the branch collar contains trunk or parent branch tissues, the tree will be damaged unnecessarily if you remove or damage it. In fact, if the cut is large, the tree may suffer permanent internal decay from an improper pruning cut.

For most young trees, maintain a single dominant leader. Do not prune back the tip of this leader. Do not allow secondary branches to outgrow the leader. Sometimes a tree will develop double leaders known as co-dominant stems. These can lead to structural weaknesses, so it is best to remove one while the tree is young. A good structure of primary scaffold branches should be established while the tree is young. The scaffold branches provide the framework of the mature tree. Properly trained young trees will develop a strong structure that will require less corrective pruning as they mature. The goal in training young trees is to establish a strong trunk with sturdy well-spaced branches.



Branch Collar pruning cuts should be made just outside the branch collar.

Need Help?

This booklet does not provide all information, on all trees, for all locations. Each tree species has its own particular needs. The Colorado Tree Coalition strongly urges you to contact your local tree expert for more information, please call your:

- Community tree board
- City Forester
- City's Parks Department
- Arborist
- Forestry Consultant
- Tree Nursery
- Colorado State University Cooperative Extension
- Colorado State Forest Service District Office

Recommended Trees for San Luis Valley Communities of Colorado

**Signifies trees that can withstand drier conditions*

Large Shade Trees (>45 feet mature height)

Patmore green ash (*Fraxinus pennsylvannica* 'Patmore')

Sturdy, cold-hardy and soil tolerant with dark green leaves, developed in Canada. 45' tall, Zone 2

Lanceleaf Cottonwood (*Populus x acuminata*)

Lance-shaped leaves turn bright yellow in the fall. Strongly pyramidal form as a young tree, does not sucker. 50' tall, Zone 3



Cottonwood

Narrowleaf Cottonwood (*Populus angustifolia*)

Native, fast growing tree that produces suckers. Leaves are long and slender turning yellow in the fall. 50' tall, Zone 2

Bur oak* (*Quercus macrocarpa*)

Very hardy, tolerant of dry sites, long-lived and produces acorns most years Related to Gambel oak. 40' tall, Zone 3



American linden

American Linden (*Tilia americana*)

Dark, green leaves, small fragrant yellow flowers, yellow to brown fall leaf color. 50' tall, Zone 3

Golden Willow (*Salix alba* 'Vitellina')

Rapid growing, broad spreading tree, nearly as wide as tall. Bright yellow twigs, alkali tolerant, good for windbreaks. 40' tall, Zone 2

American elm (*Ulmus americana*)

Choose disease-resistant hybrids. Soil tolerant, broad shaped crown, excellent street tree. 45' tall, Zone 3

Honeylocust (*Glenditsia triacanthos*)

Soil tolerant, drought resistant, compound leaves with small leaflets, turns yellow in the fall, several cultivars. 45' tall, Zone 3



Honeylocust