

## CARING FOR TREES

### Watering

Water each seedling with one gallon at planting time. Check soil moisture periodically by feeling the soil near the plant. Fabric mulch is highly recommended to conserve water and a drip system can be installed.

### Fertilizing

Fertilize seedlings with a slow release tablet that breaks down over time. Do not put any fresh material that may be too harsh for the seedlings such as manure, fish or bone meal in the planting hole. **DO NOT USE NITROGEN UNTIL THE ROOTS HAVE HAD AT LEAST ONE GROWING SEASON.** Nitrogen can be applied the second year to stimulate root growth.

### Mulching

Fabric mulch reduces weed competition and water loss from the soil, and can be obtained from the Colorado State Forest Service. Mulch allows moisture to pass through the fabric to the soil, restrict weed growth, and permit oxygen exchange between the air and the soil. Installation of fabric mulch on large plantings can be done efficiently by renting a weed barrier implement, available from the Colorado State Forest Service. Alternative products include wood chips, straw, peeler shavings, rotted sawdust, and corn cobs. Keep these alternative products less than two inches deep to avoid rodent problems. Keep mulch away from stem of seedling.

### Weed Control

Eliminate weeds around each seedling for at least two feet. This may be accomplished by hand pulling, mulching, mowing (watch out for the seedling), hoeing, or chemically treating. Herbicide can be sprayed, under low pressure, on weeds near seedlings. Cover seedling with bucket, pvc pipe or use another form of shield to keep spray from the seedling. When hoeing, use care not to damage shallow roots.

### Wildlife Damage

Weed control will discourage rodents from chewing seedlings. Commercial tree guards can be purchased from the Colorado State Forest Service or use window screen or chicken wire to make a rodent guard. Deer or elk may need to be fenced out of the planting entirely. An effective deer repellent can be made by mixing whole eggs with tap water to form a 20 percent solution; strain and spray on seedlings. If deer are really hungry, a combination of methods may be required.



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COLORADO STATE FOREST  
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## SEEDLING TREE PLANTING GUIDE



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

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## PLANTING SEEDLING TREES

Trees and shrubs are a permanent part of a home landscape. When properly selected, and planted correctly in an appropriate location, they can improve a home's appearance and increase its value, as well as provide shade, weather protection, privacy, and year-round enjoyment. Because your trees and shrubs are such an important investment, take care with their planting.

### Care and Storage of Seedlings

Improper care of seedlings between delivery and time of planting is one of the greatest causes of mortality. Do not store seedlings in heated buildings, or where they are exposed to warm air, sun, or wind. Potted trees should be watered frequently to keep soil moist. The packages drain properly from holes in the bottom.

If planting is to occur within five days of delivery, leave bare root bundles intact and store in a cool, dry place (40°-50°F). Water the package from the top, but turn over to drain. Keep sawdust moist, but do not allow seedlings to stand in water. If planting is not planned for more than a week, open the bundle, separate the seedlings and place them in a trench, cover the roots with loose soil, and fill the trench with soil. Keep the soil in the trench moist and protect the roots from exposure to air.

### Site Preparation

Site preparation enhances the soil's ability to catch and store moisture, reduces grass and weed competition, and prepares the soil for planting.

Medium to heavy (clay) soils can be summer fallowed the year prior to planting. Leave rough over winter and disk, harrow, or roto-till just before planting.

Do not summer fallow light, sandy soils as they are subject to wind erosion. Instead, plant cover crops

such as sorghum, grain, or Sudan grass the summer prior to tree planting.

Cultivate just before planting, leaving the strips between rows uncultivated.

Weeds and grasses take much-needed moisture away from newly planted seedlings. Eradicate weeds such as Canada thistle and bindweed before trees are planted; grasses should also be eliminated.

### Preparing Seedlings for Planting

*Bare Root:* Create a slurry by mixing a shovelful of soil, or a quarter cup of polymer, in a five gallon bucket half-filled with water. Open the bundle and place seedlings immediately into the bucket, submerging the roots completely in the slurry. Plant as quickly as possible. Do not store seedlings this way for more than a few hours or root death may occur.

*Potted:* Coarse polymer is mixed with water (use two tablespoons per gallon) and left to fully absorb for at least one hour before planting. Remove seedlings from container one at a time by grasping main stem of seedling near soil level and pulling gently. You may also push up through slot in bottom of container with a pencil or ruler. Do not break the root ball or leave seedlings in sun or wind following removal from container. Seedlings should be removed from the containers just prior to planting.

### Hand Planting

*Bare Root:* Dig a round hole at least one foot in diameter. Make a small mound of soil in the bottom of the hole. Take the seedling from the bucket of slurry and spread the roots out in all directions using the mound as a root support. Be careful not to "J" root the seedling. Pull loose soil back over roots and lightly tamp soil down and water. Do not compact the soil by tamping wet soil too firmly! **SOIL COMPACTION ELIMINATES OXYGEN, WHICH ROOTS NEED TO SURVIVE!**

Be sure the seedling root collar (where it was planted in nursery) is at the finished soil level. Watering is the best

method to settle the soil, eliminate air pockets, and provide moisture to the root system. Be gentle!

*Potted:* Follow the same planting instructions as for bare root, but do not disturb the roots. Mix one cup polymer mixture with soil surrounding each plant. Make sure the root ball does not become exposed after final watering.

### Machine Planting

When planting more than 1000 seedlings, consider using a planting machine. These are available for rent from your local Colorado State Forest Service Forester. Instructions on machine planting should be obtained at the time of rental.

## COMMON CAUSES OF SEEDLING MORTALITY

- Roots exposed to hot, dry air
- Roots tangled or not spread out
- Improper storage
- Seedlings planted too deep
- Seedlings planted too shallow
- Lack of water
- Seedling mowed off
- Livestock trampling
- Rodents
- Deer and elk
- Weed killer spray
- Weeds not eradicated before trees are planted
- Poor control of competing weeds/vegetation
- Lack of maintenance!