



Planting Guide



Planting and Caring for 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. One method is to submerge the entire 30-seedling tray in water for 10 to 15 minutes.

If planting is to occur within 48 hours of delivery, leave bare root bundles intact and store in a cool place (under 50°F). If planting is not planned for more than two days, 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 two tablespoons 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. Note: Do not store seedlings this way for more than two hours or root death may occur.

Potted: Remove tar paper completely from tar paper pot seedlings. For styroblock seedlings, grasp main stem of seedling near soil level and pull gently while pushing up through slot in bottom of block. With piñon, bristlecone pine and Douglas-fir, cut away the styrofoam with a knife. Do not break the root ball or leave seedlings in sun or wind following removal from block or tar paper. 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 hole. Take the seedling from the bucket of slurry and spread the roots out in all directions using the mound as a root support. Pull loose soil back over roots, filling the hole half way. Lightly tamp soil down or fill with water. Then, back fill the rest of the hole, tamp soil again or re-water. Do not compact the soil by tamping wet soil! **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.

Potted: Follow the same planting instructions as for bare root, but do not disturb the roots. 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.

CARING FOR TREES

Watering

Water each seedling with one to two gallons at planting time. Check soil moisture periodically by digging up soil near the plant. Fabric mulch is highly recommended to conserve water and drip system can be installed. Check with the Colorado State Forest Service for design assistance.

Fertilizing

Fertilizer use on new seedlings is generally a poor idea. Do not put any manure 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 at the rate of three pounds per thousand square feet of area to be covered.

Mulching

Fabric mulch reduces weed competition and water loss from the soil, and can be obtained from the Colorado State Forest Service. Mulch allows rainfall 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 three inches deep to avoid rodent problems.

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. Roundup® herbicide can be sprayed, under low pressure, on weeds near seedlings. Cover seedling with bucket 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 to make a rodent guard. Use poisons as a last resort. Eliminate pocket gophers by placing a half stick of chewing gum in the burrow. 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. Another homemade method, currently under research, is use of 6.2 percent hot sauce [Capsicum pepper concentrate]. If deer are really hungry, a combination of methods may be required.)

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
- Low quality, high salt, water
- Seedling mowed off
- Grasshoppers
- Livestock trampling
- Rodents
- Deer and elk
- Weed killer spray
- Weeds not eradicated before trees are planted
- Poor control of competing weeds/vegetation