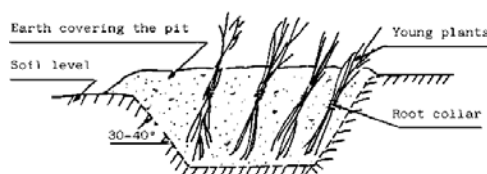


# Seedling Tree/Shrub Planting Guide

## Gilpin County

### Care and Storage of Seedlings

- Improper care of seedlings between the time of delivery and when they are planted is one of the greatest causes of death. Do not store seedlings in heated buildings or where they are exposed to warm air, sun or wind. Potted trees can be held for up to one month before planting.
- Styrofoam box potted trees: water frequently to keep soil moist. One method is to submerge the entire 30-seedling tray in water for 10 to 15 minutes.
- Tube potted trees: unpack box and keep upright and watered. If necessary, “plant” tubes in soil to keep upright (or keep in the box)
- Bare root plants: if planting is to occur within 48 hours of delivery, leave bundles intact and store in a cool place (under 50F). If planting is not planned for more than two days, **heel them in** (plant them in a temporary hole). Open the bundle, separate the seedlings and place them in a trench or hole, cover the roots with loose soil and backfill with soil. Keep the soil moist. They can stay in this temporary hole for up to three months.



- If you don't have water rights, heel in under a downspout or the dripline of your roof, and plant during the rainy season (usually in July).

### Site Preparation

- Proper site preparation enhances the soil's ability to catch and store moisture, reduces grass and weed competition.
- Weeds and grasses take much-needed moisture away from newly planted seedlings; eradicate them first.

### Dig all holes first!

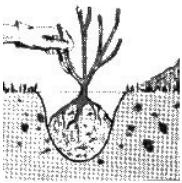
- Dig a round hole at least one foot in diameter to allow roots to spread. It should be as deep as the root system of the plant, and gradually spread out and up to the soil line in a saucer-shape.
  - Soil can be amended with 10-20% compost– not potting soil! A handful of alfalfa pellets will also work well.
  - Add water holding crystals/starch to soil to reduce watering. Follow directions for amounts.
  - Mound soil around edge of planting hole to create a basin surrounding the plant to maximize water retention – especially on the downhill side of slopes.



## Preparing Seedlings for Planting

- *Bare Root:* Open the bundle and immediately place seedlings into the bucket and submerge the roots completely. Plant as quickly as possible. (Note: Do not store seedlings this way for more than two hours or root death may occur.)
- *Potted:* Completely remove plastic pot from seedlings by grasping gently. For styroblock seedlings, grasp the main stem of seedling near soil level and gently pull while pushing up through slot in the bottom of block. With piñon pine, 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.

## Planting



- *Bare root:* make a small mound of soil in the bottom of hole. Take the seedling from the bucket and spread the roots out in all directions, using the mound as a root support. Pull loose soil back over roots, filling the hole halfway. Lightly tamp soil down or fill hole with water. Backfill the rest of the hole and tamp soil again or re-water. Do not compact the soil by tamping wet soil. Soil compaction eliminates oxygen, which roots need to survive!
- *Potted:* Follow the same planting instructions as for bare root, but do not disturb the roots.
- Be sure the seedling root collar (the depth it was planted in the 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

## Caring for Trees

- *Watering:* Water each seedling with one to two gallons at planting time. Periodically check soil moisture by digging up soil near the plant. **Mulch is highly recommended** to conserve water. (Can be picked up free at slash pile – call 303-582-5004 to arrange.)
- *Fertilizing:* Using fertilizer on new seedlings generally is a poor idea. Do not put any fresh manure in the planting hole. **Do not use nitrogen until the roots have had at least one growing season.**
- *Weed Control:* Eliminate weeds around each seedling for at least two feet. This can be done by hand pulling, mulching, or hoeing. Be careful not to damage shallow roots when hoeing. Do not use chemical control around seedlings.
- *Wildlife Damage:* Weed control will discourage rodents from chewing seedlings. Commercial tree guards can be used, or window screening can be used to make a rodent guard; use poisons as a last resort. Deer or elk may need to be entirely fenced out of the planting. A somewhat effective deer repellent can be made by mixing 1 egg in 1 quart water; strain and spray on seedlings. Add garlic and hot pepper if you like.

## Common Causes of Seedling Mortality

Roots exposed to hot, dry air, roots soaked too long, improper storage, seedlings planted too shallowly or too deeply, roots tangled or not spread out, hole not adequate, lack of water/moisture, rabbits, voles, pocket gophers, deer or elk, poor control of competing weeds/vegetation.