STORAGE AND HANDLING

Bareroot and unrooted stock types cannot be allowed to dry out or warm up. They should be protected from temperature extremes, even for short periods. Once the plant materials are received they should either be planted immediately (easier said than done), or placed in cold storage (easier said than done). The optimal temperature for cold storage is 34 to 39 F. The warmer the plants become, the faster they metabolize and use stored food and moisture, resulting in reduced post-plant performance. It is equally important to ensure that the roots do not dry out.

Once a root dries to a certain point, it will die. If enough of the root mass reaches this point the plant will die. Opened bags and boxes should be tightly resealed after use, but only after first checking the moisture in the container. Add more water if things are drying out. Be sure not to add excessive water however, since increased mold can result. It is also important to try to not transport more plants than needed for a days work.

PLANTING

There are some general planting guidelines that should be followed:

- Provide a planting area that is adequately weed-free, and maintain it that way.
- Site plants where there is suitable soil moisture.
- Dig a hole that is large enough to accommodate the roots, allowing for the roots to hang downwards. Not crammed into an undersized hole resulting in a misshapen root mass such as J roots and L roots.
- Use care in back filling the hole. Get the soil tamped down sufficiently so that no air pockets remain. Air pockets increase moisture stress for the seedling.
- Thoroughly water plants after planting. This helps in settling the soil in the planting hole and providing good initial soil moisture. Even drought tolerant species are susceptible to drought stress until established. Supplemental irrigation may be needed, or at least beneficial, during prolonged dry periods. Mulching around the planting site also helps retain soil moisture and can reduce weeds.
- The importance of weed control has already been mentioned, but warrants further consideration. Most weeds, in suitable conditions, are genetically programmed to out-compete and eliminate less worthy competitors. The process begins by being more efficient at using precious soil moisture and nutrients to the point where it dominates the site and chokes out others. Weeds can also provide habitat and cover for rodents, which might feed upon the struggling seedlings. Methods of weed control include mechanical cultivation, herbicides and mulching. Great care should be made to ensure that safe and effective control measures are used.
- Tree protectors should be used if a threat of damage exists from large herbivores such as deer, or small ones, such as mice and voles. Additional measures of protection include fencing, repellents, rodenticides, and maintaining weed control to reduce suitable habitat for rodents.
Eight Steps in Tree Planting

Correct

Planting Errors

Insert hoe
Loosen soil

Pull (toward you)
Insert tree

Turned up roots
Tangled roots

Cover roots
Cover to base

Rock
Air pocket

Pack soil
Correctly planted

Too shallow
Too deep