

# Hand-planting Guidelines for Bareroot Trees and Shrubs

## Handling and Transporting

- Keep roots covered and moist at all times
- Keep seedling out of direct sunlight and wind when transporting; transport seedling in a closed or covered vehicle.
- Allow adequate floor space to permit hauling of trees without piling sacks too deep.
- Avoid compaction of sacks when loading, which causes “heating up” of evergreens.
- Avoid unnecessary overheating of seedlings. Park vehicle in the shade if stops are necessary.
- Upon reaching your destination, promptly unload seedlings into a cool, dark, well-ventilated storage facility.

## Storage

- Plant trees the day they arrive, or begin as soon as possible (2 to 3 days).
- Keep roots moist and covered at all times with moist shared paper or burlap.
- Protect seedlings from severe freezing.
- Do not allow ice to touch roots.
- Do not keep evergreens in sacks for more than one week.
- Do not store trees in water as this kills the roots.
- If you cannot plant the trees within a week and cold storage is not available, the trees should be heeled-in. Place a heel-in bed in a cool, shady location. A heeling-in bed consists of a trench dug in the soil. The trench should have both ends and one side straight; the other side sloped, and should be deep enough to contain the entire root system. Soil should be well packed around roots and thoroughly watered. Trees may be stored in the heel-in bed for a week or more.

## Planting

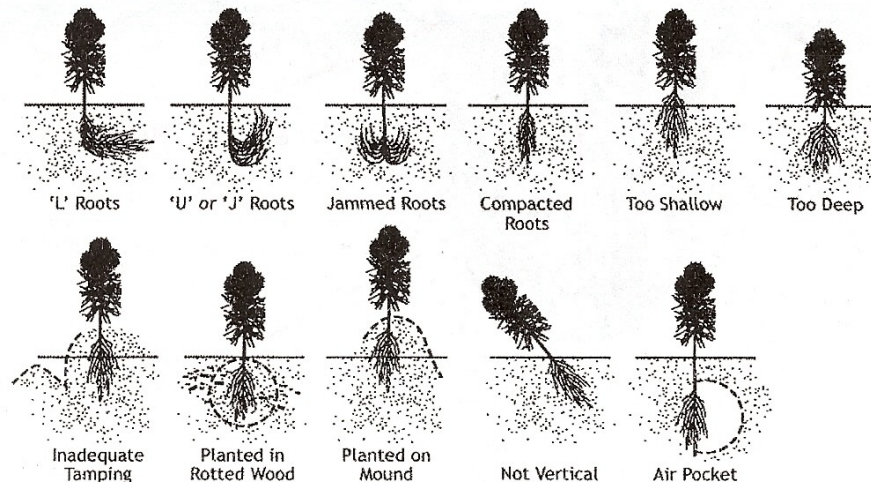
- Avoid planting when the ground is frozen or extremely dry, or when excessively wet and sticky.
- Keep roots moist, cool and covered at all times. Carry seedling in a bucket of water or wet packing material such as moss. **Do not store trees with roots in water.**
- Dip roots of evergreens in soupy mud or a commercial soil and root dip before planting.
- Do not plant seedlings deeper than one inch above root collar.
- Holes should be deep enough and wide enough so roots are not bent or crowded (See figure 1 below). Make sure roots are not exposed after planting.
- Pack the soil firmly around the roots to close air pockets. To check firmness of soil packing, grasp the top of the seedling and pull gently upward; if the tree pulls out of the ground easily, it was not firmly packed.
- Avoid planting seedlings in sod-bound, grassy areas without prior site preparation.

## Care After Planting

- Keep all planting free of competing weeds and grasses.
- Protect newly planted evergreen on south and west sides with shingles.
- Control weeds in the planting until the crowns close. Do not cultivate deeper than three inches.
- Regularly replace dead or missing trees.
- Inspect plantings occasionally for insect or disease problems.

Department of Agriculture and Natural Resources  
Division of Resource Conservation & Forestry

523 East Capitol Avenue  
Pierre, SD 57501



Revised 2021

This publication was funded in part by a grant from USDA Forest Service Forest Stewardship Program.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex age or disability. (Not all prohibited bases apply to all programs. To file a complaint of discrimination: write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue SW, Washington D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer. This publication made possible through a grant from the USDA Forest Service.