

# TREE PLANTING



The key to a successful planting program is to provide a micro-environment that fosters the survival and subsequent growth of the planted seedlings. While young seedlings are tough, excessive handling or dropping of the seedling can cause damage and stress, reducing survival and growth.

Important steps to achieve a successful planting:

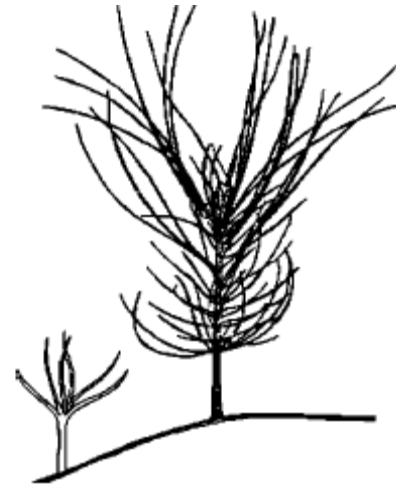
1. Seedlings should be stored at 33° to 35° F with high humidity. Seedlings can be stored in the refrigerator for a short period of time by enclosing them in a plastic bag.

If your seedlings have been stored in a cooler at 33° to 35° F, they will need to be "acclimatized" to the site they are to be planted in. Seedlings should be stored on-site (in the shade) one day before planting.

2. Insure that soil temperatures are warm enough to promote rapid root growth. Use a thermometer and place the recording end about four inches deep into the soil. Springtime soil temperatures should be a minimum of 40° F for several days before seedlings are planted. This is to insure good root egress and to establish a "water chain" between the soil and the seedling, and to anchor the seedling in the ground. Roots do not grow at cooler temperatures and seedlings can dry out during windy days due to seedling roots being unable to extract enough moisture for transpiration.
3. Protect your unplanted seedling from direct sunlight, wind, and high daytime temperatures. Store seedlings in heavy shade on north aspects or under

suspended tarps three to four feet above the seedling boxes so as to provide adequate shade and good air movement (KEEP THEM COOL).

4. Wherever possible, plant seedlings on the north and east sides of stumps, logs, large rocks, and debris. These "microsites" will help protect newly planted seedlings from solar radiation and lethal daytime temperatures, wind, and animal traffic during the first few growing seasons.
5. Avoid holes and depressions where dirt and water will collect and not drain off of the planting spot. Avoid areas where soil is mixed with excessive amounts of litter, slash, or other debris.



6. Dig a hole deep enough for the roots. Make sure that the roots are straight and do not bend ("J" or "L" roots). Spades, shovels, and mattocks work best. Take only one seedling out of the bundle at a time. This protects the other seedlings from drying out.

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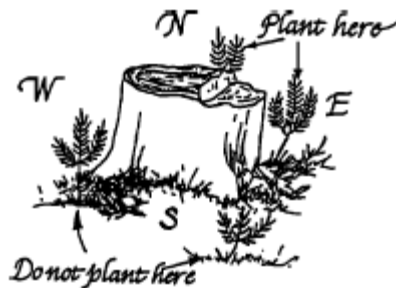
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7. Keep all foreign matter (duff, snow, rocks, sticks, etc.) out of the planting hole.
8. Place the seedlings in the center of the hole, with the top of the root collar about one-half inch below the soil line. It is critical that the seedling is not planted too shallow or too deep.
9. Fill the hole so that there are no air spaces, and the seedling is firmly in place. Be sure to use moist soil.
10. Do not compact the soil near the base of the seedling with your foot or planting tool. Avoid the "Death Stomp". Seedlings should be firmly in place when tugged on and not easily pulled out of the soil.

## UTILIZATION OF EXISTING SHADE IN TREE PLANTING

Whenever possible, trees should be planted on the north or east side of logs, stumps, brush piles, chunks of wood, rocks, and brush patches to take full advantage of existing shade.



Tree planters should be trained to select planting spots that take full advantage of the shade factor. No tree should be planted in the open if shaded planting spots can be utilized within one-half the established normal spacing interval for the area. The following system should be adhered to in order to insure the best planting job possible for each area:

1. Mark planting spot where each tree would be planted using the normal spacing distance.
2. Determine if a shaded planting spot is available within a circle that covers one-half the normal spacing.
3. When possible, plant a tree where shade is available within a reasonable distance.
4. Return to marked spot where tree would have been planted using normal spacing guides and proceed along original planting line at normal spacing interval.

Planting where the seedling has the advantage of afternoon shade increases the chance for plantation success.

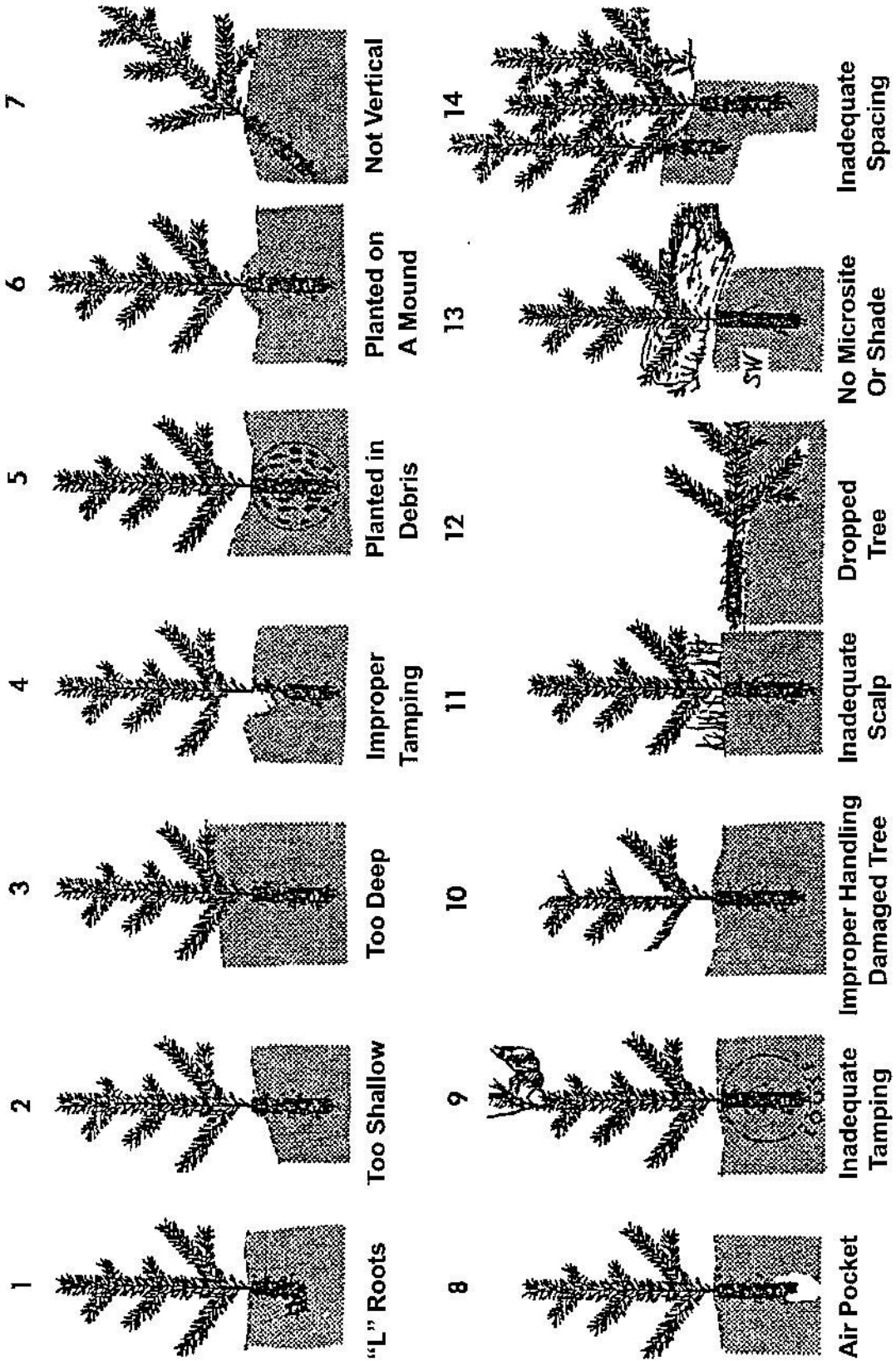
Planting inspectors will check the following factors affecting planting success in the field:

1. Quality of the planting job.
2. Tree (planting stock) care.
3. Utilization of available shade.
4. Adherence to spacing guidelines.
5. Daily planting production for each planting project and unit.

The use of available shaded planting spots should be a key factor in judging the quality of each planting job. Planters who consistently plant trees without regard to the use of shaded planting spots having afternoon shade should be given additional training or removed from the planting crew.

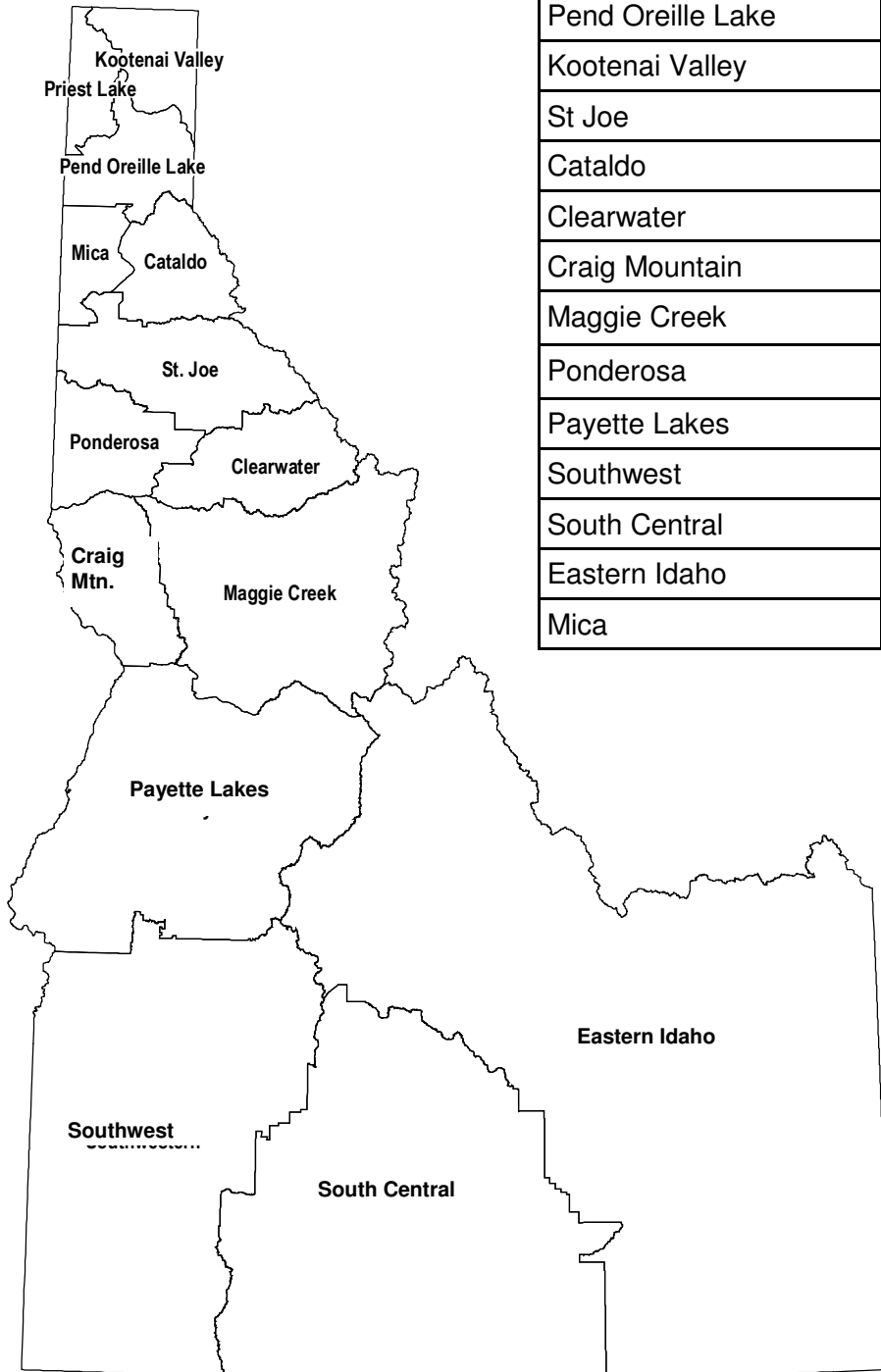
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## Unacceptably Planted Trees





**FOR MORE INFORMATION CONTACT  
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