

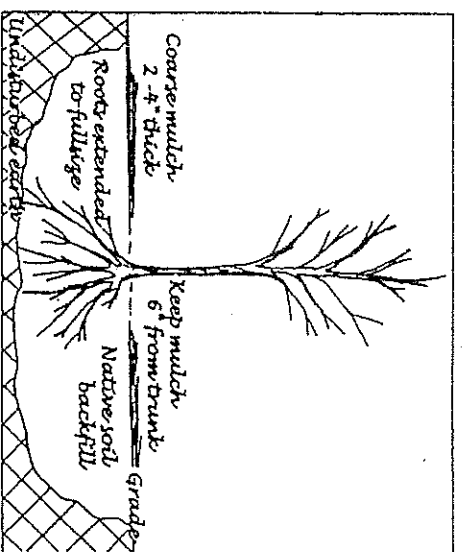
A GUIDE FOR HAND PLANTING: 10 STEPS TO SUCCESSFUL TREE PLANTING

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When you bait your hook with your heart the fish always bite....when you plant a tree with love it always lives, you do it with such care and thoroughness.

...John Burroughs

1. Begin with a healthy tree that has no signs of insects or disease, has a strong trunk, and has roots that are not pot-bound. Choose a site that is large enough for the tree to grow to maturity. Soils that are compacted or have had heavy machinery on them need to be ripped or aerated over the entire area to a minimum depth of 18 inches. Water must be available for the planting and thereafter, on a regular watering schedule for plantings in the arid west.
2. Dig a hole that is no deeper than the rootball and at least 3 times as wide. Five times as wide as the rootball is even better. This size increases aeration and decreases the chance of "root suffocation" from over watering. Place the soil removed in digging aside and use it to backfill the hole. Soil amendments have not been shown to offer any consistent advantage.
3. Test the hole for adequate drainage by filling the hole with water. The water should drain out overnight or at least ½-inch per hour. If not, find another place, with better drainage, or install a designed drain. Plant only where soils drain and water does not stand during the wet season.



4. Carefully remove the container, plastic, paper maché, burlap, or wire basket. Place the tree on undisturbed soil. The top of the rootball should be at grade. Planting at grade keeps water, disease, and rot away from the root crown. If the tree has been grafted, face the graft scar away from the direct sun.
5. Tease the roots out from the rootball surface. Spread them out into the wide hole that has been prepared. Take care to keep the roots moist during planting. Prune any roots that are wrapped around the rootball, are mushy, or are dry and brittle with sharp shears. If the majority of the roots are rotten, dried-up or pot-bound, return the tree to the nursery for a replacement.



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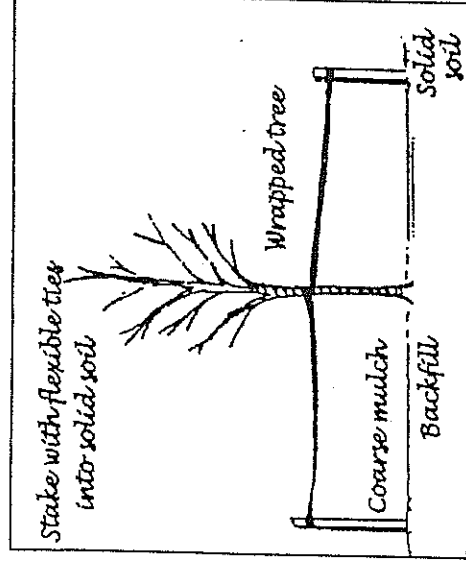
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6. Backfill the hole using the soil removed when digging the hole. Tamp the soil lightly, as the hole is filled, to remove air pockets. Water thoroughly while backfilling and when finished.

7. Cover the prepared area with 3 to 4 inches of coarse organic mulch (not rocks) directly over the bare soil. Sheet plastic kills the roots when placed on the soil below the mulch. Mulch will help prevent weeds, conserve moisture, and help maintain an even soil temperature. Keep the mulch 6 inches from the base of the tree trunk.



8. Prune only to correct major form problems, i.e., branches that may be rubbing. Removing more than 15 percent of the above ground growth can negatively affect the growth of all species. The terminal buds located on the branch ends

contain a hormone necessary to stimulate root growth and must not be removed by practices like rounding over or topping.

9. Stake only to secure the rootball. Place two upright stakes, no taller than the height at which the first limb appears, into undisturbed soil at right angles to the prevailing winds. Secure the trunk to the stakes with soft, flexible ties that will allow the tree to bend in the wind. Check ties often to prevent strangulation or bark damage. Remove the stakes after the first growing season.

10. Protect the young tree trunk from the sun. The easiest way is to paint the trunk with diluted, white latex paint. Oil-based paint damages the bark. The trunk can also be wrapped in porous, pliable white wrapping manufactured for this purpose. Another option is a commercial tree shelter. In addition to shading the trunk, some protection from rabbits and mice is provided by the tree shelters. Wire caging may be necessary in some areas to protect trees from animals.

Continue to visit the newly planted tree frequently during the first year after planting. Keep the planting area free of weeds and grass for the first three years. Check the soil for moisture and watch the leaves for any signs of stress. Make certain the tree is receiving the correct amount of water; not too much and not too little. Lastly, enjoy the tree.

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