



FLAGSTAFF

## Native Plant & Seed

Nursery / Landscaping / Restoration / Licensed

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# Tree Planting

If the tree you are planting is balled and burlapped, or bare rooted, it is important to understand that the tree's root system has been reduced by 90-95% of its original size during transplanting. As a result of the trauma caused by the digging process, trees will commonly exhibit what is known as transplant shock. Transplant shock is indicated by slow growth and reduced vigor following transplanting. Proper site preparation before and during planting coupled with good follow-up care will reduce the amount of time the plant experiences transplant shock and will allow the tree to quickly establish in its new location.

- Dig a shallow, broad planting hole. The hole should be as much as three times the diameter of the root ball, but only as deep as the root ball. Breaking up the soil in a large area around the tree provides the newly emerging roots room to expand into loose soil to hasten establishment.
- *Container Trees:* Lay the tree on its side with the container end near the planting hole. Hit the bottom and sides of the container until the root ball is loosened. If roots are growing in a circular pattern, slice through the roots on a couple of sides of the root ball.
- Identify the trunk flare. The trunk flare is where the roots spread at the base of the tree. *This point should be partially visible after the tree has been planted* (see diagram). If the trunk flare is not partially visible, you may have to remove some soil from the top of the root ball.
- Place the tree at the proper height. The majority of the roots on the newly planted tree will develop in the top 12 inches of soil. If the tree is planted too deep, new roots will have difficulty developing due to a lack of oxygen (see diagram). To avoid damage when setting the tree in the hole, always lift the tree by the root ball and never by the trunk.
- If the tree is in a root control bag, place tree in hole, and carefully slice the bag down the sides as to not cut the roots. Slice through the bottom of the bag and remove it from the root ball. Disturb the roots as little as possible.
- Fill the hole about 1/3 full and gently but firmly pack the soil around the base of the root ball. Then, if the tree is balled and burlapped cut and remove the string and wire from around the trunk and top 1/3 of the root ball.
- Fill the remainder of the hole taking care to firmly pack soil to eliminate air pockets that may cause roots to dry out. To avoid this problem, add the soil a few inches at a time and settle with water. Continue this process until the hole is filled and the tree is firmly planted. It is not recommended to apply fertilizer at the time of planting.
- Stake the tree, if necessary. If the tree is grown and dug properly at the nursery, staking for support is not necessary in most home landscape situations. Studies have shown that trees will establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. However, protective staking may be required on sites where lawn mower damage, vandalism or windy conditions are concerns. If staking is necessary for support, two stakes used in conjunction with a wide flexible tie material will hold the tree upright, provide flexibility, and minimize injury to the trunk (see diagram). Remove support staking and ties after the first year of growth.
- Mulch the base of the tree. Mulch acts as a blanket to hold moisture, moderate soil temperature extremes, both hot and cold, and reduces competition from grass and weeds. Some good choices are leaf litter, pine straw, shredded bark, peat moss or wood chips. A two to four inch layer is ideal. More than four inches may cause a problem with oxygen and moisture levels. When placing mulch, care should be taken not to cover the

actual trunk of the tree, as this may cause decay of the living bark at the base of the tree. A six inch mulch-free area at the base of the tree is sufficient to avoid moist bark conditions and prevent decay.

- **Follow-up Care:** Keep the soil moist but not soaked; over watering will cause leaves to turn yellow and fall off. Water trees at least once a week, barring rain, and more frequently during hot weather. When the soil is dry below the surface of the mulch, it is time to water. Continue until mid-fall, tapering off for lower temperatures that require less frequent watering. If branches are damaged during planting, minor pruning may be necessary. Prune sparingly immediately after planting and wait to begin necessary corrective pruning until a full season of growth has passed.

