

Planting and Early Care of Trees



Although arborists generally care for mature trees, it pays to go beyond basic tree maintenance and acquaint yourself with all aspects of tree care, including selection, installation and post-planting care of young trees.

You have probably heard the term "right tree, right place." **Matching the tree species to the planting site is critical for its success.** Yet too many times trees are planted because they are on sale at the local nursery or on a landscape architect's short list.

SITE SPECIFICATIONS DETERMINE SPECIES SELECTION

Look at the site's exposure—trees grow best in full sunlight. Ensure **that there is enough room for the tree to grow and mature.** Many homes have small lots where large species such as oaks, cottonwoods or Ornamental Figs will endure a lifetime of hardscape conflicts and severe pruning before they are finally removed.

Good soil drainage is essential to most trees' health. To check drainage, dig a hole to the depth that you will be planting the tree. Fill it with water and note how long it takes to empty. If the hole is still filled with water a day later, either chose another location or consider building a raised planter, mounding the soil or creating physical drainage solutions such as drains.

SHOPPING FOR A SUPERIOR SPECIMEN

Once you have decided on the species, **choose a tree that is free from defects, both above- and below-ground.** The leaves should be turgid, without brown margins, spots or holes. Look for a smooth, straight trunk free from nicks, tears and large scars. Be sure the tree has a sound central leader and temporary lateral branches. **Inspect the roots for symptoms of root rot.** Roots should not be brown or mushy but crisp and vigorous in appearance.

Avoid selecting trees that are topped or headed back in the nursery to create fullness. It is more difficult to train these trees and maintain a central leader necessary for development of good branch architecture in the young tree.

Girdling roots are a common problem in containerized trees.

Sometimes, the roots begin circling when the tree is in a "liner," a 3.5-inch container used for propagation. Circling roots keep doing so as the tree is transplanted into larger and larger containers. As the tree grows and matures, these circling roots also grow larger until they literally encircle the trunk and girdle the tree. The main stem then fails at or below the soil line, often when it is at or nearing mature size.

You can often detect circling roots by simply moving the trunk back and forth in the container. If the soil lifts on the surface, chances are there are circling roots below. For larger boxed trees, gently remove the soil to a depth of about two inches around the trunk to see what lies beneath. You should also check that the tree has not been buried above the root flare during transplanting, another common problem.

TRANSPORTATION, PREPARATION AND PLANTING

When transporting a tree to the planting site, be sure that the crown is covered with burlap or landscape fabric to minimize desiccation and sun scald. Water the tree well when it arrives at the site and again prior to planting if the tree is not planted right away.

Often tree specifications call for holes dug deeper than the existing rootball with straight sides. Instead, **dig the hole only as deep as the rootball and as wide as possible,** with sloping sides.

Never plant a tree deeper than the existing rootball. Recent research recommends planting so that the root ball projects slightly from the hole. The trunk flare should never be buried with soil or mulch.



Planting too deeply, plus circling roots doomed this tree from the start. Photos Courtesy: Helen M. Stone

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Trunk tissue and root tissue differ physiologically. While roots need water to function, trunk tissue will eventually decay and lead to the death of the tree if constantly watered. This is a slow process, but inevitable.

If using an auger, shape the hole with a shovel so it is bowl-like instead of can-like. Granular fertilizer or planting tablets can be used according to manufacturer's directions if soil conditions require the addition of nutrients

The use of soil amendments in the planting backfill is no longer recommended, as research indicates that amendments offer few or no benefits and can be detrimental if the organics decompose around the rootball. Backfill the hole with the soil that came from it but do not place it over the tree rootball; this creates an interface and leads to drying of the root ball and tree death.

Cover the rootball with a mulch of coarse organic matter. A mulch layer about three to six inches deep will help soil under the mulch retain moisture and keep the soil temperature even. Be sure to keep the mulch away from the trunk of the tree.

STAKING AND SOAKING

Although trees are routinely staked, **evaluate each situation and skip the stakes if possible.** A tree that moves and bends will build strength, caliper and taper. Temporary lateral branches also support stem growth and taper and should be left on the stem if possible. A nursery stake is similar to a cast on a broken leg — when the cast is removed, the leg is weak and won't support weight.

If landscape staking is necessary, use soft, flexible ties. Hose with wire running through it may damage the tender trunk tissue. Tie the tree as low down on the trunk as possible. Remember, you want the tree to move with the breeze even though it's staked. **Be sure to remove the stakes as soon as possible** — usually a year after planting or less if possible. Stakes and ties left on too long cause damage and girdling.

In most areas of the west, almost all trees need supplemental irrigation for establishment. The tree's rootball needs to be kept moist during its critical first year of establishment.

EARLY PRUNING

Pruning at planting time should be confined to removing only broken or damaged branches. Once the tree is established, begin early pruning and training. As always, remove any diseased, dying, dead or broken branches.

Select a strong central leader. Remove any competing leaders. If the tree has been topped in youth (as is the case with many nursery trees), this step is critical for a sound structure in maturity.

Select the lowest permanent branch. Since branches do not move as the tree matures, the **lowest permanent branch should allow for future traffic, be it pedestrian or vehicular.** Permanent scaffold branches should radiate from the central leader like ascending spokes, evenly spaced around the tree's trunk. The branches should be attached at about a 45 degree angle to the trunk. Remove any codominant stems.

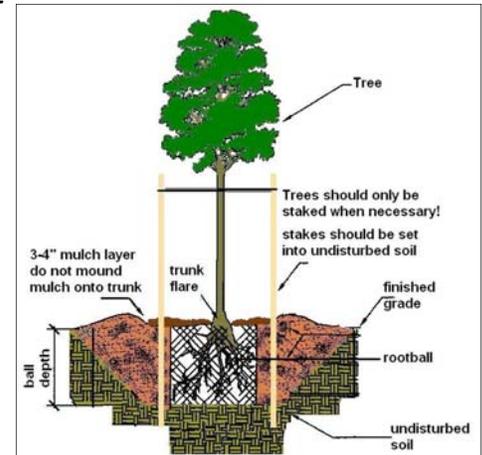
Keep temporary branches on the lower trunk to provide shade for the tender trunk tissue. These branches increase photosynthesis and help the tree establish. If they are too vigorous, cut them back to about six inches. Remove the branches when they are an inch in diameter or less.

Prune young trees at least on an annual basis to establish a strong structure. This pays off in reduced maintenance in maturity, as well as better overall health, aesthetics and safety. 🍂

Further Reading/Links:

SelectTree: A Tree Selection Guide
<http://www.selecttree.calpoly.edu/>

Pruning and Training Young Trees
http://www.treesaregood.com/treecare/pruning_young.aspx



Courtesy: Russ Thompson