

How to Select and Plant a Tree

Selecting and planting trees are not tasks shrouded in mystery and magic. No chant or sacrificial offerings will be needed to ensure the survival of your newly planted tree.

Nurseries sell trees in 3 forms:

Bare-root trees, as the name implies, lack soil or growing media on their roots. Therefore, it is imperative never to let the roots dry. The prudent planter should soak the roots in water or cover them with wet peat moss and store them in a cool place until planting time.

Balled-and-Burlapped trees, on the other hand, retain their native soil. Although losing 90% or more of their root system during the digging process, B&B trees generally have a higher survival rate than transplanted bare root stock; yet, if the root ball is not kept intact during transplanting, survival is reduced considerably.

Containerized trees are currently very popular. However, containerized frequently suffer from poor root structure. While often not apparent at planting time, kinked or encircling roots will cause future health problems for the transplant. During the transplanting process, these deformities must be gently straightened or cut!

Selection Process

When choosing the right tree, remember the following 5 “S’s”: **Specific, Site, Space, Structure** and **Standards**. **Specific** refers to the purpose of your new tree (i.e. privacy, shade, color, etc.). Always choose a species that corresponds to your landscape need. Likewise, **site** refers to the matching of plant biological requirements to the physical conditions of the site. For example, plants which prefer acidic soil must be planted in acidic soil and *vice versa*. Thirdly, **space** describes the need for adequate room above (both vertically and horizontally) and below ground for future growth. The fourth parameter of selection is **structure**. This refers to an individual specimen’s physical attributes. Is the trunk straight and well tapered? Are the branches well distributed along the entire trunk and are they smaller than the main trunk? Do 50% or more of the branches originate in the lower 2/3 of the trunk? Are there any significant wounds on the branches or trunk? The final selection parameter, **standards**, refers to the proper height and root ball proportions as defined in the *American Standards for Nursery Stock*. Of the standards mentioned within the manual, the most important one is the standard concerning root ball size. With the exception of very large diameter root balls, minimum root ball diameter should equal or exceed a ratio of 12-inches for each inch of trunk caliper. Above all else, examine carefully before you buy, and buy for quality !!

Planting Process

Prudent planters no longer refer to the spot where the tree is to be planted as the “hole” but rather as the “planting area”. Current research indicates that the ideal habitat for a newly planted tree is a planting area that is 3 to 5 times the diameter of the root ball and has been loosened and mixed by shovel or rototiller. Feeder roots, some as fine as human hair, quickly exploit this moist, aerated soil, providing the tree with the water and minerals it needs to grow. A planting area constructed thusly bears a striking resemblance to the natural forest ecosystem. In other words, the prudent planter attempts to mimic what the tree loves best.

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The following steps attempt to recreate the ideal habitat just described:

Mark out a planting area **2 to 5** times the diameter of the root ball.

Using a shovel or rototiller, cultivate the soil to the depth of the tree's root ball. If the site proves unsuitable for this action, dig a hole at least **twice the diameter of the root ball**. The bigger the hole, the better!

Add and mix well a **small** (no more than 20% of total soil volume) amount of **compost** to the planting area.

Dig a shallow hole in the center of the prepared area only as deep as the root ball.

Place the root ball in the hole in such a manner as to ensure the root ball top is level with the surface of the surrounding soil. IF the site has poor drainage or limited soil depth, then the root ball may be raised 2 or 3 inches above the surrounding soil.

Cut all wires and rope securing the burlap around the root ball and pull the burlap or wire at least half-way down the root ball, preferable all the way.

For containerized trees, check to see if there are encircling roots present. If so, gently separate and spread them into the planting hole. If they are too large to spread, then cut them.

Backfill with the original soil using water instead of your feet to settle the soil. **Do not put any soil on top of the root ball!**

Apply no more than eight ounces of a **slow-release fertilizer (preferably organic)** to the planting area.

Apply 3 to 4 inches of wood chip mulch over the entire planting area. If possible, place one inch of compost between the mulch and soil. Do not put mulch within 3 inches of the tree trunk.

Stake only if necessary. Support ties should be placed between 1/3 and 1/2 of the total tree height.

Prune only dead, diseased, broken or rubbing branches.

And always remember the old gardener's adage—"Always plant a \$10 tree in a \$100 hole!"

*The source for this **GVST Gardening Guide** is Mark Peterson, San Antonio Staff Forester with the Texas Forest Service. He is also the manager of the Oak Wilt Suppression Project for 10 South Texas counties. For more information about Texas Trees—from selection to planting and care, check the Texas Forest website at www.tfs.tamu.edu.*

All GVST Gardening Guides are available on the GVST website: www.gardeningvolunteers.org.

