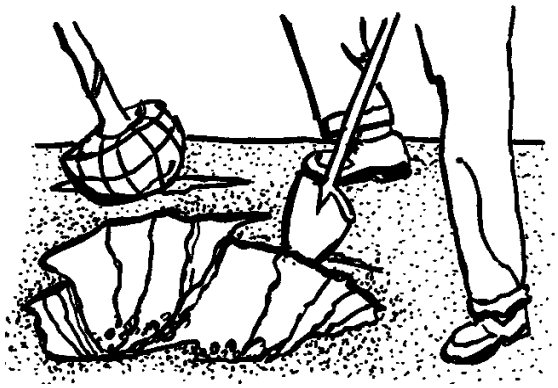
How to Plant a Tree

The old saying to never put a $10 plant into a $2 hole contains a lot of truth. It is much better to create a $10 hole for a $2 tree. A well-dug and properly amended hole will produce a healthier and faster growing tree.

The first thing to keep in mind is to purchase a healthy tree that is well-suited for the location. A healthy tree is acclimated to our climate. The needs of your tree need to match your site. If the tree prefers to grow in shady, dry conditions make sure this is what the site provides. If this tree were placed in full sun in an area that stays wet after a rain, it will never grow to its full potential, and it may die. A tree that will reach a mature size of 30-40 feet should not be placed under an electric line, and a deciduous tree will not provide a year-round screen. These are just examples of matching your needs with the tree. Consult your County Extension office or the staff at your local garden center concerning selection of a tree which will both meet your needs and fit the site correctly. Make sure to take into account the proximity to buildings, sidewalks, driveways, streets, utility lines (both overhead and buried), and septic systems. Once you are sure that the plant is healthy and is suited for the location the preparations can begin.



Before planting the tree, test the soil where the tree roots will be growing. Dig 10-15 samples 4-12 inches deep in the potential root zone. Combine these samples in a bucket and remove approximately two cups of soil as a representative sample. Adjust the potential rooting zone according to the results of the soil test. If possible, incorporate the fertilizer and lime to a depth of 12 inches into the soil. Never add potting soil, peat moss, or any other modification that is not prescribed by a soil test to the planting hole. Unprescribed soil conditioners are unnatural and they can result in greater susceptibility to drought and increase root defects.

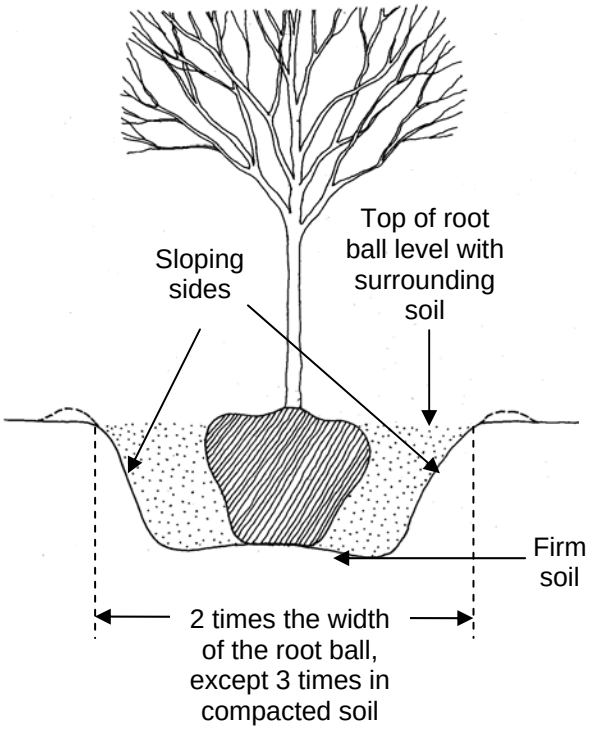
SOIL PREPARATION IS AN IMPORTANT STEP IN TREE ESTABLISHMENT

Trees require well-aerated soil with adequate organic matter and proper pH (acidity) to survive and thrive.

Soils must be prepared to provide these conditions before trees can be planted.

Once the soil has been amended the hole can finally be dug. Examine the rootball of your tree. The hole should be 2-3 times the width of your rootball. For example, if the rootball is 12 inches wide and 12 inches deep, the hole should be 24-36 inches wide and no more than 12 inches deep. Make sure the soil on the sides of the hole is not compacted or glazed over; jagged and irregular walls provide a surface that encourages root expansion. No large soil clods or chunks should be left in the hole or soil air pockets may result.

Once the hole has been dug, place the tree in the center of the hole and backfill the remaining space with the original mineral soil. Do not plant the tree deeper than it was in the original container; better yet, remove the top of the soil until the very first roots are exposed. These roots should be at or slightly above the ground level. You may want to plant the tree 2-3 inches higher than the surrounding ground level; as newly planted trees are watered they tend to settle into the planting hole. Be sure not to pile soil around the trunk of the tree. If soil is left at the base of the trunk for an extended period of time the higher levels of moisture and stress can lead to increased disease, insect damage, and potentially death.



Hole size is critical to tree survival. Trees need a planting hole that is much wider than it is deep.

This tree came over 6-inches too deep from the nursery. It is critical that the first roots are exposed prior to planting so the tree can be installed at a proper depth.

Once the tree has been placed in the hole and additional soil replaced, thoroughly water the site. This practice will compact the loose soil and remove air pockets. Removal of these large pockets will encourage the tree roots to fill in the loose soil. After watering, add with 3-4 inches of mulch to cover at least the area from the trunk out to the edge of the dripline of the branches. Just like with the soil, make sure to keep mulch at least 2-3 inches away from the trunk of the tree to reduce insect and disease pressure. Be sure to maintain even moisture to the tree roots by watering regularly or using slow-release watering systems such as “gatorbags” which slowly release water over a 1-3 day period. Newly planted trees should be watered once weekly throughout the crowing season when rainfall does not average at least one inch per week.

Gatorbags or milk jugs with small holes poked in bottom, are an efficient way to get water to newly-planted trees and shrubs.

Submitted By:
Amanda Tedrow
Athens-Clarke County Cooperative Extension