



Guidelines for Planting Young Trees

The most crucial time of a tree's life may be the half hour you spend planting it. That half hour can determine whether or not the tree will thrive; indeed its very survival may depend on the procedure followed during planting. This article summarizes guidelines for proper tree planting, as suggested by the Ohio Department of Natural Resources, Division of Forestry.

Site preparation: Many soils in urban and suburban areas have been degraded by heavy construction machinery, so that the topsoil layer has been stripped away and the remaining subsoil compacted. If the soil at your planting site has been degraded in this manner, the soil should be ripped to a depth of 24 inches; 2 inches of compost should then be incorporated into the upper 10 inches of soil and a top dressing of an additional inch of compost applied. Ideally, this should be done several months before planting.

Preparing the hole: The most important consideration is planting the tree at an appropriate depth. *Planting too deep* is the most common mistake in planting young trees; even commercial nurseries often do this. Your young tree will probably be in a pot, or balled in burlap. Measure the root ball, and prepare a hole 2-3 times the width of the root ball or container. *The hole should be deep enough to allow the root flare* (the slight widening of the trunk at the base of the tree just above the roots) *to be just above the soil line.* If the tree is planted too deep, it will be less stable and may develop stem-girdling roots that can choke off its vascular system, causing it to die.

Planting: Tamp the soil firmly at the bottom and sides of the hole. **Remove all foreign materials that were confining the root ball – e.g., wire basket, rope, burlap, string, etc.** If any roots are encircling the trunk, spread them out. If this requires removal of much of the soil from the root ball, soak the roots well in water before planting. Place the tree in the hole; replace the original soil. **Compost should be incorporated into the top 10 inches of soil.** Remove any tree wrap from the trunk.

Mulching and watering: Apply 2-4 inches of mulch at least as wide as the planting hole. **Do not pile mulch around the base of the tree; instead, leave the area within 3-4 inches of the root flare mulch-free.** "Volcano mulching" has much the same effect as planting too deep. Water generously; a rule of thumb is to apply 5 gallons of water for every inch of trunk diameter. This should be repeated every week, unless at least an inch of rain has fallen during that interval.

Staking: Generally, healthy young trees planted properly do not need to be staked. But staking may be advisable if the site is subject to high winds or the roots have been compromised (e.g., damaged or unstable in the ball), or if the tree has more canopy than the roots can support. Use two stakes on opposite sides of the tree; use flat, broad flexible material around the trunk (e.g., never strings or wires). Generally stakes can be removed within the first year.

We hope these guidelines and the attached diagram will help insure that our urban forest thrives, and that residents can avoid the expense of having to replace trees that were not planted properly. For more information visit the Ohio Division of Forestry web site at www.ohiodnr.com/forestry.

