

Proper Tree Planting Practices



The most important stage in the life of an urban tree is when it gets planted. Common mistakes that occur at this point can shorten the life of a tree considerably.

Girdling Roots and Planting Depth

Girdling roots are a common problem that can reduce the life span of trees in urban landscapes. This condition results when roots coil around the base of a tree trunk and restrict the flow of sap in the tree. Tree roots often respond to their restricted growing space in containers or ball and burlap by encircling the tree trunk. This tendency is made worse when the tree is planted too deep in the soil after it is brought home from the nursery. For further information see our fact sheet on ***girdling roots***.

Safety

Do not dig a planting hole until you are sure there are no underground utilities in the immediate area. Contact Gopher State One Call at 651-454-8388 (in the Twin Cities Metro area of Minnesota) before digging and planting. Keep in mind that utility services do not typically locate privately installed features such as gas lines installed to serve grills, etc.

The Right Tree in the Right Place

Make sure the tree you have chosen will fit in the space you have selected for planting. There should be plenty of room for the tree at its projected size at maturity, both above and below ground. Be sure that your planting spot is at least several feet from paved surfaces or fences on all sides, at least 15 feet from any buildings, and at least 25 feet from overhead power lines.

For further information about species of trees we recommend as shade trees, refer to our fact sheet: Recommended Shade Trees to Plant. This sheet lists a variety of species suitable for the Twin Cities area in Minnesota, each with expected dimensions for height and width at maturity.

Considerations for Ball and Burlap & Containerized Trees

Finding the Root Flare

It is very important to locate the area known as the root flare. This is the top of the root system, where the main roots begin to extend laterally from the trunk. If the root flare is buried too deep, problems can result that shorten the life of the tree.

Often you will need to remove inches of soil from over the top of the roots to find the root flare. Excess soil can often be dug away with tools, by hand, or with the aid of a spray of water from a hose. The root flare should be visible at the soil surface after planting tree health.



Containerized trees often have circling roots.



Finding the root flare with a spray of water.



The root flare is often buried under several inches of soil.

Ball and burlapped trees have their root system held together by a wrapping of burlap and a wire basket. This type of tree is generally larger than trees sold in a container or pot, and can weigh hundreds of pounds. Remove twine and the top part of the burlap arrangement to allow access to find the root flare. Roots that are circling can be straightened, if possible, or else removed. When the position of the flare is located, the tree can be moved into the planting hole. When the tree is in place, remove as much as possible of the burlap and wire basket and discard them.

Containerized trees come from the nursery in pots of plastic, or sometimes paper material. As with ball and burlapped trees, it may be necessary to remove soil from the top of the root ball to find the flare. Start by removing the tree from the container; you might need to set the container on its side and press on it to loosen the soil ball to allow it to come out. If there are circling roots or the tree is pot bound, the most recent recommendation is to saw off the sides of the root ball in a box pattern. New trees recover and establish well with this procedure, as shown from extensive studies at the University of Minnesota.

Digging a Hole and Planting

The planting hole should be dug 2-3 times as wide as the root ball, with a wide and shallow shape like a saucer. The hole only needs to be deep enough to keep the root flare near the surface. After digging is completed, correct any defects in the root system, following the recommendations listed above. Position the tree in the center of the planting hole. Backfill with soil that was removed from the hole. Water the hole to settle out air pockets in the soil. Double check to ensure the root flare is visible at the soil surface. Finish up by applying a layer of mulch to the area. Place wood chips to a depth of 4 inches, avoiding direct contact with the tree trunk. Staking is not typically necessary unless the tree leans or tips. Even then, staking should not be necessary beyond the first season or two after planting.

Watering New Trees

Water is critical to the establishment of a newly planted tree. Apply water once a week as a saturating trickle from a garden hose for the first full season after planting your tree. Adjust according to weather conditions if necessary: more if it has been hot and dry, less if it has been wet and rainy.



Removing containerized tree from container.



Watering a new tree.



A properly planted and mulched tree.