

# How to Plant a Tree

Stephen Schott, Graduate Research Assistant  
University of Minnesota Department of Forest Resources

---

Planting a tree is a great investment that pays off in many ways. Trees add value to property, lower utility bills, and are beautiful to look at. However, for a tree investment to pay off, it needs a strong start. This begins with a good planting. If poorly planted, your investment may be wasted. Following some very simple steps will ensure that your tree is planted correctly and will thrive for years to come.

**1. Remove the pot or other packaging from the soil ball** (Figure 1). If the tree is balled and burlapped, you can remove the top half of the wire and burlap before or after placing the tree in the hole (all of the burlap and wire may be removed if desired). Be sure to support the tree by its root ball at all times. Lifting or carrying the tree by its stem can damage the root system.

**2. Inspect the area where the tree stem meets the soil.** If you cannot see the first major root, remove soil from the top until the first major root is visible (Figure 2). This will prevent stem girdling roots in the future. Stem girdling roots circle around the trunk when it is buried

too deeply and strangle the tree until it dies or is blown over. You may have to remove more soil than you are comfortable with, but your tree will thank you in the future. Do not let the roots dry while preparing to plant the tree.



Figure 1



Figure 2

**3. Dig a hole that is 1 to 2 feet wider than the root ball.** This will allow for easy root growth once your tree adjusts to its new home. Place the tree in the hole.

Contrary to popular belief, planting the tree a couple of inches above ground level is beneficial, especially in soils that are compact or drain poorly (You can test how well your soil drains by digging a hole 24 inches deep and filling with water. If it does not drain within 24 hours, the soil drains poorly). The beginning of the tree's first major root should never be below ground level.

**4. Remove any remaining wires and strings** from the stem of the tree to prevent “choking” in the future. Fill dirt around the sides of the root ball, lightly packing as you fill. You do not need to apply any fertilizer for the first year.

**5. After you plant your tree, it needs lots of water** to get settled into its new home. Run a garden hose on low (or gently pour water) at the base of the tree until the soil is thoroughly saturated.

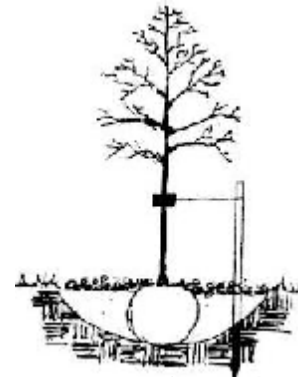
**6. Put down a 3 to 4 inch layer of mulch** extending 2 to 3 feet around the tree (Figure 3). Keep the mulch about an inch away from the tree stem to allow for air exposure to the stem. Mulch will keep the soil moist, reduce weed problems around the base, and avoid weed-whacker and lawn mower damage to the stem, which commonly kills trees.



**Figure 3**

**7. Placing trunk protection around the base for the first 1 to 2 years is valuable** because it prevents animal and weed-whacker damage, as well as general winter damage. You can protect your tree's trunk by placing a white plastic guard or hardware cloth around the bottom of the trunk, extending 2 to 3 feet up the stem. Avoid using dark colored guards, as they build up heat and increase the risk of stem damage.

**8. Staking is not necessary for most tree plantings.** However, if the tree cannot stand up straight on its own or is blown over, it needs to be staked. Place a stake opposite the side that the tree is leaning. In rare cases, 2 to 3 stakes placed evenly around the tree may be necessary. The stake should be outside of the root ball that you placed in the ground to avoid harming the roots (refer to Figure 4). Attach a soft material such as burlap, canvas, or carpet scraps loosely against the stem. Never allow wires, cables, or ropes to touch the stem, as they will damage the bark. Connect the soft material to the stake with a wire, cable or rope. Check the tree at the end of the growing season. If it is stable, remove the stake.



**Figure 4**

**9. Pruning is not necessary for newly planted trees.** Your tree needs all the energy it can produce to make up for lost roots. Only prune off dead or damaged branches and leave the others alone for at least 1 year.

Your tree will need regular watering for the first 2 years. If the tree is large at transplant it will need regular watering for at least 3 years. You can gauge how much water your tree needs by observing the leaves. If the leaves are fatigued and wilted, the tree is receiving either too little or too much water. Keep in mind that overwatering is just as bad as under-watering. Adjust how much you water your tree according to weather patterns. If it has rained at least 1 inch in the last 3 or 4 days, your tree may not need water. If the soil does not dry between watering, water less frequently to avoid “drowning” the roots—they need oxygen to breathe too.

The best way to water your tree is to give it a slow steady stream, as opposed to a quick rush of water. Gently pouring a couple of gallons of water in the morning and evening is a good option. In general, you should water your tree 1 to 2 times per week until there is a regular frost in late autumn.

Closely following these steps is the first phase in producing a healthy, beautiful tree and a great investment. For more information about planting and caring for new trees, visit the Urban Forestry section on the University of Minnesota Forest Resources Extension Website: <http://fr.cfans.umn.edu/extension/>.