



## **The BCLS Landscape Services Guide to Planting Trees and Shrubs**

**SITE CONDITION:** Most evergreen and deciduous trees and shrubs require reasonable drainage because constantly wet or saturated soil smothers roots, and retards or kills most plants. If your location has wet soils, please ask for a copy of the Rosedale Plantsman's "Guide to Plants for Wet Soils" to select suitable plants. Many trees and shrubs also require at least 1/2 day of direct sunlight to grow well. Trees and shrubs that tolerate partial (less than 1/2 day of direct sun) or dense shade are listed in the Rosedale Plantsman's "List of Recommended Plants for Shade."

**TRANSPORTING TREES AND SHRUBS:** For best results, trees and shrubs should be transported either inside a vehicle or, if in an open vehicle, should be covered with burlap or a similar material when the plant is in leaf or active growth (about April 5 – October 30). The branches of wide plants should be padded and gently but firmly tied in as needed to prevent breakage. Plants may be placed on the sides of the rootball or container, as long as they cannot roll and the trunk is supported. Bare-root plants should always have their roots wrapped in moist burlap. Trees and shrubs should not be placed in direct sun for long periods or allowed to dry out. Please ask for our assistance in loading or inquire about our delivery service.

**UNLOADING AND CARRYING PLANTS:** Smaller plants generally should be carried by the container or rootball, not by their trunks or branches. To unload a heavy plant from a car or truck, slide or roll the rootball down a short plank. Transport a heavy plant to the hole using a dolly, or slide the rootball across the lawn on a heavy tarp or blanket. Large or wet plants can be heavy; be sure to ask another person for help if needed.

### **PROPER STEPS FOR PLANTING:**

1. Dig a hole at least 24" wider than the diameter of the rootball, container, or (for bare root plants) spread of the roots. The sides of the hole should be roughly perpendicular and should be raked or loosened to prevent "glazing" in heavier soils.
2. Store excavated topsoil next to the hole on burlap or a utility tarp. Discard and remove stones, poor subsoil and unneeded topsoil .
3. **Important Note:** All plants (including B&B, container and bare-root) should be planted at the same depth (or slightly higher) as they were planted in the nursery field or container. Therefore, determine the proper depth for the hole by measuring the height of the rootball or soil in container, or (for bare-root plants) the distance between soil line on the trunk and the base of the roots. In damp areas, the tree or shrub often should be planted higher on a wide, gently sloped mound of soil, to improve aeration and drainage.

4. Spread evenly on the stockpiled topsoil and in the hole an amount of Peat Moss or Compost equal to about 1/4 of the volume of the hole. Next, add Planting Fertilizer (4-10-6), Bulb-tone (4-10-6), or another appropriate fertilizer (ask for assistance) to the bottom of the hole and soil kept for backfill. As a rough guide, use about 2 1/2 lbs. of fertilizer for each cubic foot (compressed) of Peat Moss or Compost used. For a 5 gal. Container plant, about a handful of fertilizer is enough. For a 1 1/2-2" cal. Tree, about 2 lbs. of fertilizer should be right. Thoroughly mix the Peat Moss or Compost and fertilizer into the stockpiled topsoil and the soil at the bottom of the hole.
5. Next, follow the appropriate instructions below for planting B&B, wire basket, container, or bare root plants:

**Balled and Burlapped (B&B) Plants** – (i) Set the plant in the hole, and then cut the sisal or plastic rope around the trunk of the tree and rootball. (ii) Peel the burlap away from the ball and cut it away around the circumference of the bottom of the ball. This will leave a burlap circle beneath the rootball that will later rot away (if natural burlap). (iii) If the plant is wrapped in plastic or green (treated) natural burlap, it is best to cut away and remove all of the burlap. **Important Note:** Never leave plastic rope or plastic burlap around the trunk of the tree or the rootball, since this material could later girdle the plant as it grows larger.

**Wire Basket Plants** – (i) Place the plant next to the hole, and then gently tip it on to the side of the rootball. Cut away the narrow bottom of the wire basket using wire cutters. (ii) Next, place the plant upright in the hole, backfill as needed to support the plant upright, and then cut away and remove the remainder of the basket and any plastic rope. (iii) Then follow the instructions in the preceding paragraph for B&B plants.

**Container Plants** – (i) Gently remove the plant from the container and place in the hole. If the pot will not slide off readily, make a vertical cut on each side of the pot and remove it. Alternatively, you can place one hand on top of the soil in the container, and then gently invert the plant. Do not hold the plant by the stem or trunk; support the root mass and soil instead. The plant should slide out easily. (ii) **Important Note:** If the plant has matted or dense roots visible on the outside of the rootball, take a sharp knife, and gently prune the roots by making shallow, vertical cuts into the rootball. Alternately, you can “tease” the roots out by hand. It is important not to leave a matted perimeter of roots, since this can discourage new roots from growing outward into the adjacent soil. (iii) If the plant has been recently potted (in the spring or fall), some of the soil may fall away from the roots. This is normal and is not harmful for newly potted plants. If most of the soil drops away, follow the steps outlined below for “bare-root” plants.

**Bare-Root Plants** – (i) The hole should be large enough so roots can be spread out naturally. (ii) At the bottom of the hole, make a cone of the soil mixture. (iii) Place the plant on top of the cone, and spread the roots around the top and sides of the cone. Then backfill and tamp as described below.

6. Straighten the plant, re-check for proper planting depth, and backfill the hole two-thirds of the way with the soil mixture. Tamp the soil firmly, and then water generously. Check again for straightness. Fill up the hole around the rootball with additional soil mixture, and tamp firmly. Next, for trees and large shrubs, use the remaining soil mixture to build an earthen saucer around the hole. The saucer will help direct rainfall and supplemental water through the plant's rootball. Any remaining soil can be discarded. Fill the saucer gently with water, allow it to percolate down, then repeat. A slow, thorough watering of the rootball and surrounding soil is best.
7. See the "Rosedale Plantsman's Guide to Watering" for further information on watering your plants.

**PRUNING:** For deciduous trees and shrubs, prune to eliminate any damaged, crossing or unnecessary interior branches. This pruning is helpful to the long-term development of the branch structure.

**WATERING:** Proper watering is important for good growth, until the plant becomes "established" (usually by the end of the first year). Water as described in step 6 above once or twice per week as needed during the first growing season, depending upon the weather. Use your finger to check the soil near the trunk. If the soil is dry or the leaves appear to be drooping, it's time to water again. Avoid watering every 1-2 days, as too much water is as bad as too little.

**STAKING:** Large trees and container trees generally require staking or guying to prevent rocking by winds. Use wire or webbing secured to 2-3 pointed wooden stakes. Encase wire in old garden hose to prevent it from touching the trunk or branches.

**FERTILIZING AND AFTER CARE:** Do not fertilize again until the following fall. Then begin fertilizing annually, using Tree and Lawn Fertilizer (10-6-4) or Plantone (4-3-2) for deciduous plants, and Hollytone (4-6-4) fertilizer for evergreens. The earthen saucer and guying materials should be kept in place for approximately 1-1 1/2 years and remove in the fall not more than 2 years after planting.

#### **MATERIALS NEEDED FOR PLANTING:**

Peat Moss or Compost  
Pine Bark or other organic mulch  
Planting Fertilizer (10-6-4) or Bulbtone (4-10-6)  
Guying Materials (for larger B&B and container trees)

#### **HELPFUL TOOLS:**

Garden Shovel or Spade  
Handfork  
Lawn Rake (for cleanup)  
Pruning Shears  
Garden Hose  
Utility Tarp or Burlap

**SUGGESTED REFERENCES:**

HOW TO SELECT AND CARE FOR SHRUBS AND HEDGES (Ortho Books)

ALL ABOUT TREES (Ortho Books)

ALL ABOUT PRUNING (Ortho Books)

DIRR'S HARDY TREES AND SHRUBS (Timber Press)

MANUAL OF WOODY LANDSCAPE PLANTS (Stipes)