How to Plant a Tree

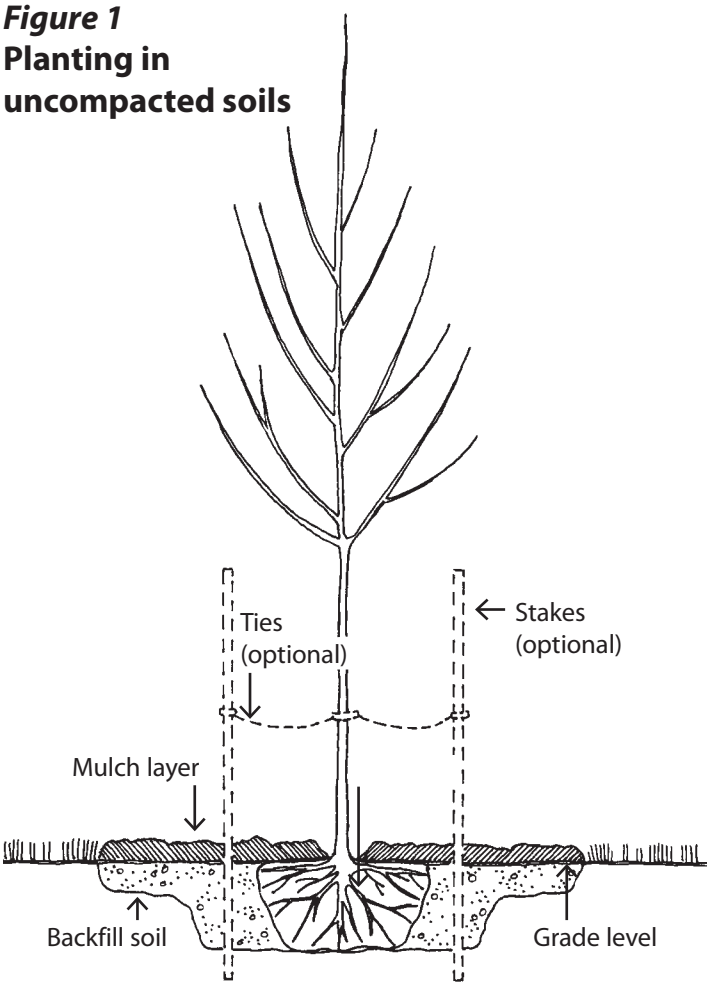
Selecting trees

Consider the limitations of the planting site, the purpose for the tree, and each tree's unique growing requirements before selecting the type of tree to be purchased. Before purchasing, check to be sure that the new tree does not have a great deal of soil added over the root flare. The root flare is the point where the top major roots extend out from the tree trunk (see figure 2). Unfortunately, many new trees have the root flare buried under several inches of soil. This is to be avoided at all times.

Determine the proper planting depth

Trees should be planted with their top major roots even with the soil line (see Figure 1). Trees planted at the wrong depth do not develop well and may have shortened life spans. Excess soil should be removed before planting.

Figure 1
Planting in uncompacted soils



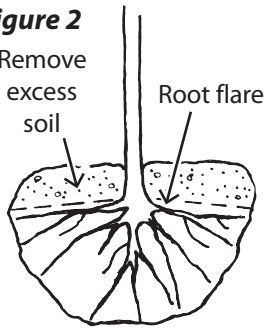
For balled-and-burlap trees, gently poke a stiff wire through the burlap next to the tree trunk until you hit a root. Note the distance between the top of the root ball to the first root. Check in two or more locations around the trunk to make sure you've located the top major roots. Leave the burlap in place to do this to make moving the tree easier. The distance from the top-most root to the bottom of the ball is the correct depth to dig your hole. Carefully remove the excess soil from the top of the root ball once it is in the planting hole. Container trees should have the soil carefully removed from the top, exposing the root flare, and then planted.

The planting hole

Dig a spot at least twice the diameter of the root ball and deep enough to place the root flare even with (or up to 1 inch higher than) the soil line. Place the tree in the hole, taking care to handle it by the root ball — not by the trunk. In order to prevent settling after planting, make sure the root ball or container soil rests on solid ground — not fill dirt.

Carefully cut the twine wrapped around the stem at the top of the root ball.

Figure 2



Be sure to remove the following:

1. All tags, labels, and strings
2. The wire basket from around the root ball
3. Any container holding the root system
4. Burlap from at least the top half of the root ball to prevent wicking of moisture from the soil
5. All excess soil on top of the ball, exposing just the root flare (see Figure 2)

Backfill soil

Make sure the tree is straight before backfilling. Use the same soil that came out of the pit. Finely chop the soil and remove any stones or debris. Avoid potting soil, peat moss or other amendments. Fill the hole halfway, watering thoroughly as you go, then finish backfilling. Work the soil around the ball gently so that no air pockets are left. Firm the soil so the tree is vertical and adequately supported, but do not pack the soil.

Water
Saturate the entire backfilled soil with water. A slow, gentle soaking is best. Add more soil, if needed, to compensate for settling.

Mulch
Cover smoothed soil with 3 inches of wood compost or bark chips. Shape the mulch into a doughnut 2 to 3 feet wide, leaving a small gap near the trunk. Do not mound mulch onto the trunk of the tree. Mounding encourages root girdling, which can weaken and kill trees. Black plastic, grass clippings, or sawdust should not be used as mulch. Keep mulch weeded. Replace as needed.

Pruning
Remove only broken or badly deformed branches the first year. Begin a regular pruning program the second or third year after planting.

Optional procedures

Stakes
Stakes may be used to prevent shifting of the root ball or to protect the stem from mowing equipment. If needed, the tree should be guyed strongly enough to provide support, but flexibly enough to allow 6 to 8 inches of sway. Drive one or more stakes near the tree, but not through the roots.

The best guying materials are wide and flexible, such as plastic horticultural tape or canvas webbing.

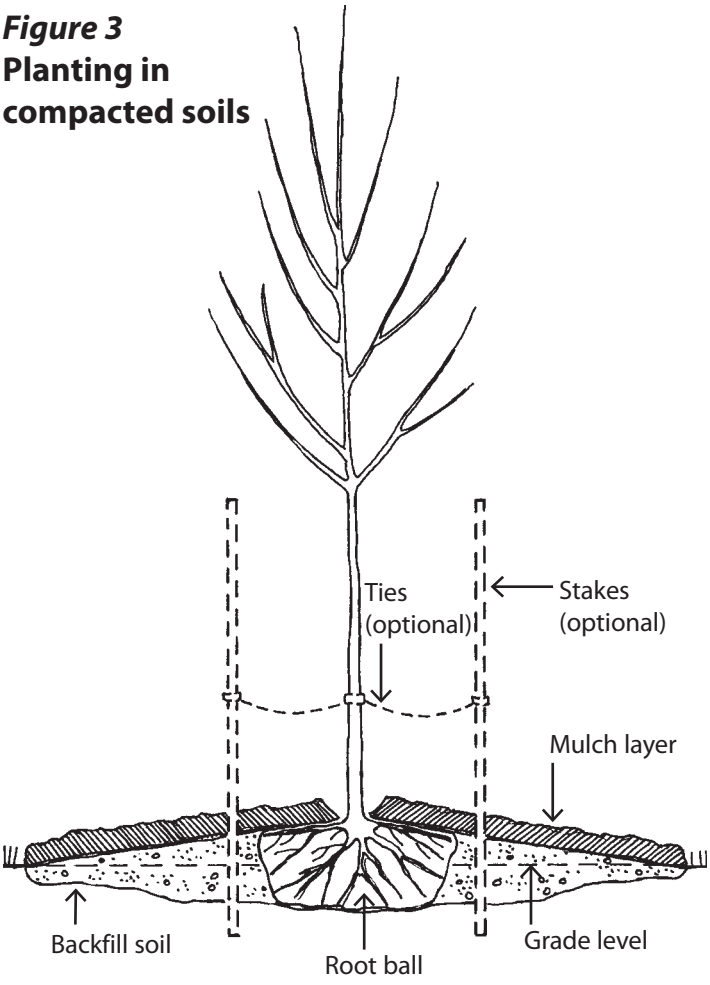
Remove guys/ties as soon as the tree can stand alone — about three months, but no longer than one year after planting. Guys/ties ultimately can kill your tree if not removed.

Trunk wrap
Research indicates that trunk wraps provide little, if any, benefit to trees. In fact, they can encourage damaging insects or disease-causing fungi. Avoid using trunk wraps unless specifically recommended.

Planting in compacted soils
To test for compacted soil, do a simple percolation test. Dig a hole 12 inches to 18 inches deep and fill it with water. If any water is still in the hole 12 to 18 hours later, then you have compacted or heavy clay soils.

Roots need oxygen, so dig a wide, shallow hole three to four times the width of the root ball or container and only half as deep. Mound backfill soil slightly to the top of the root flare, covering the entire excavation. This creates a raised planting bed, which will improve the tree's performance (see Figure 3). Soils that hold excessive moisture may need a subsurface drain tube installed below the root ball, or look for alternative sites.

Figure 3
Planting in compacted soils



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