Standard Tree Planting Detail

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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. Unfortunately many new trees have the root flare buried under several inches of soil. This is to be avoided if possible.

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.

For balled and burlap-wrapped 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 buried 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 pit at least twice the diameter of the root ball and deep enough to place the root flare even with or up to one inch higher than the soil line. Handle the tree by the root ball, not by the trunk. Be sure the root ball or container soil rests on solid ground to prevent settling.

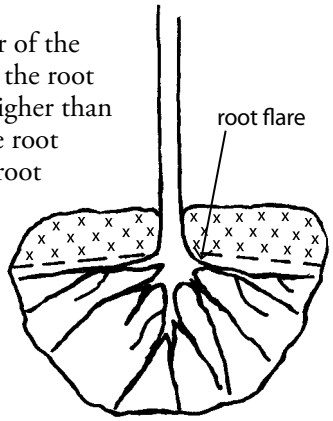

Figure 2

Carefully cut the twine wrapped around the stem at the top of the root ball. *Be sure to remove the following:*

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

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.

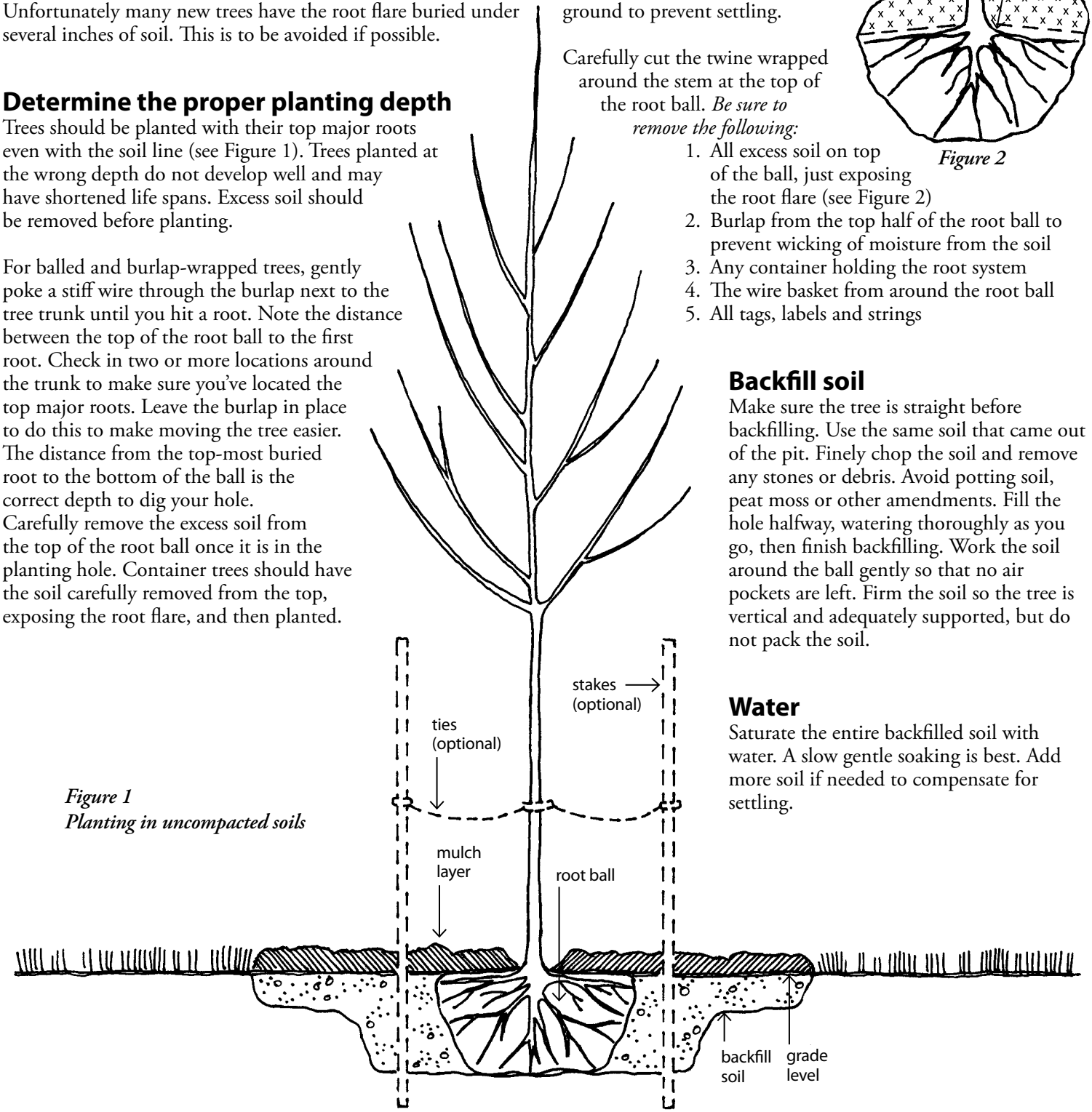

Figure 1
Planting in uncompacted soils

Mulch

Cover smoothed soil with 3 inches of wood 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.

The following procedures are optional

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. If guy wires are used, placed them through tubing or hose sections to prevent damage to the bark. All guys/ties should be placed low on the trunk. Remove guys/ties as soon as the tree can stand alone–about 3 months, but no longer than a year after planting.

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.

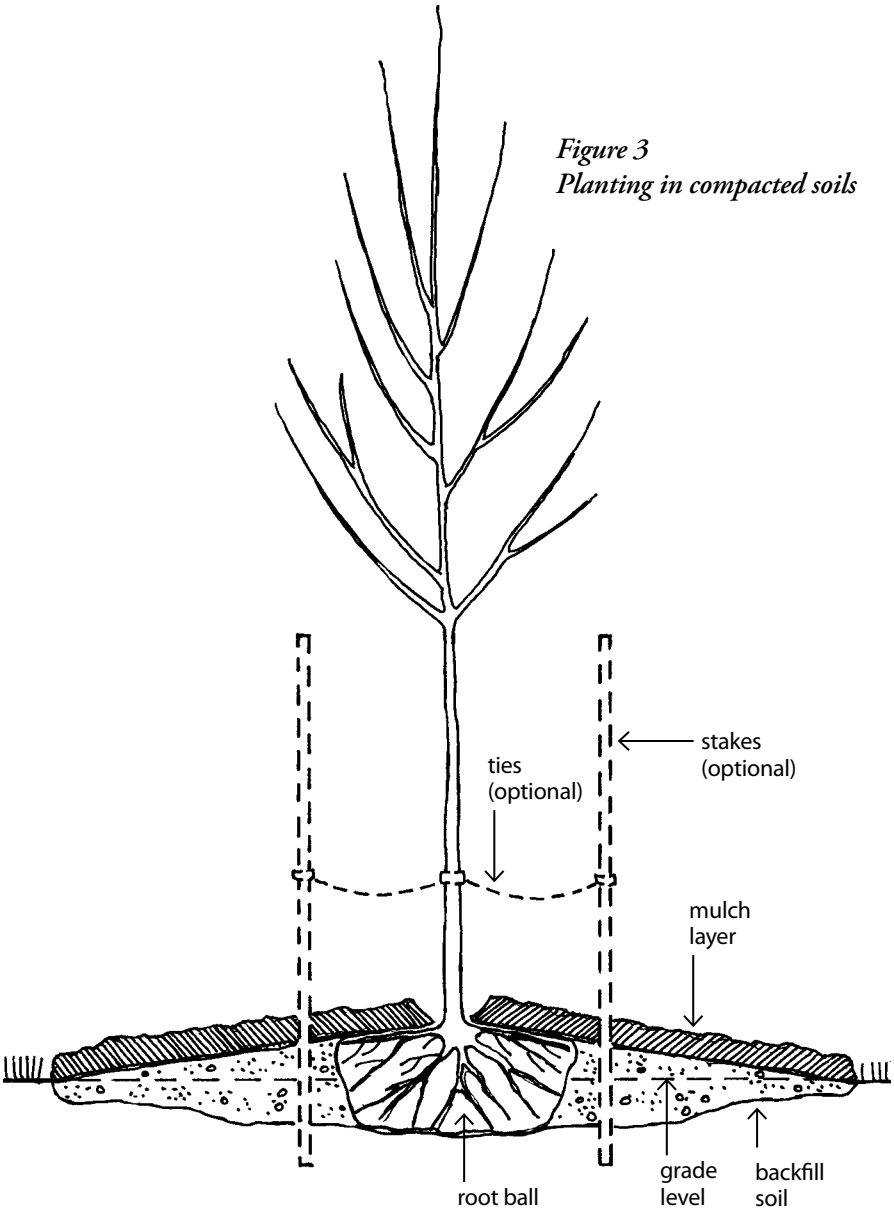

Figure 3
Planting in compacted soils

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