

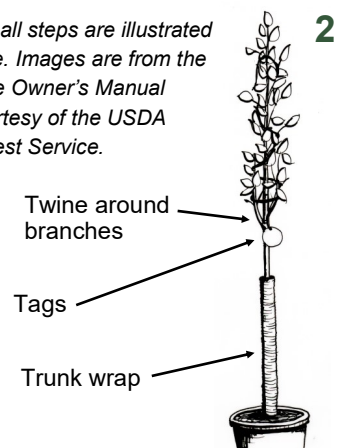
TREE PLANTING 101

Steps for successful tree planting

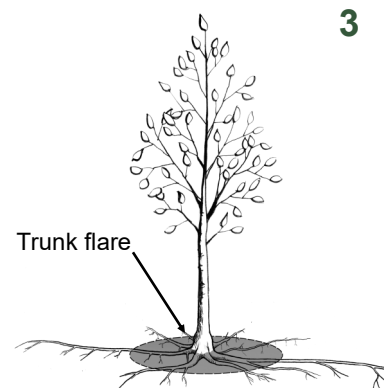
This factsheet picks up after you have selected an appropriate site for your tree and an appropriate species for the site. For information on site and tree selection, go to www.treesaregood.org/treeowner

1. **Move the tree to its planting site.** Carry the tree by its container or root ball (not the trunk).
2. **Remove packaging from trunk and branches.** Check the canopy for twine. Leave root packaging in place for now.
3. **Find the trunk flare.** The trunk flare is where the trunk expands at the base of the tree and starts to curve. It is where structural roots become distinct from the trunk. When the tree is planted, the flare should be at or just above the finished grade. On your tree, there may be excess soil on top of the trunk flare. You may have to remove soil from the top of the root ball to identify the flare. You can gently probe the root ball with a chaining pin, skewer, screwdriver, or wire to locate structural roots.
4. **Determine how deep and wide to dig.** Call Dig Safe (811) before you dig. Measure from the bottom of the container/root ball to the flare. The depth of the planting hole should be no greater than this. Measure the approximate width of the root ball and make your hole 2 to 3 times as wide. In hard, compacted soil, the hole should be closer to 3 times as wide.
5. **Dig a hole to the dimensions from Step 4.** Break up compacted soil and then dig the hole **ONLY** as deep as the root system. Do not loosen the soil at the bottom of the hole. If the sides appear smooth or “glazed,” use a shovel to rough up the sides.
6. **Remove packaging from the root ball.** For container trees, this means removing the tree from the container. For balled and burlapped trees (B&B), this means removing the burlap and wire basket. If it seems like the B&B root ball will fall apart, place the tree in the hole and then remove packaging. For in-ground fabric containers/grow bags, this means removing all of the fabric or bag.
7. **Remove roots.** Remove all small roots above the main root system with a hand pruner. Examine the main root system for roots that extend out but then turn to the side or back toward the trunk. Prune these roots at the point where they turn. You may want to dedicate a pair of hand pruners for this purpose.
8. **Place the tree in the hole.** Roll or place the tree in the center of the hole. Be careful and make sure you have enough helpers. Check the depth of the root flare and adjust hole depth, if necessary. Examine the tree from two sides, 90° apart. Is the trunk straight? Are branches facing the way you want? You can backfill with a little soil to help stabilize the tree as you check the placement.

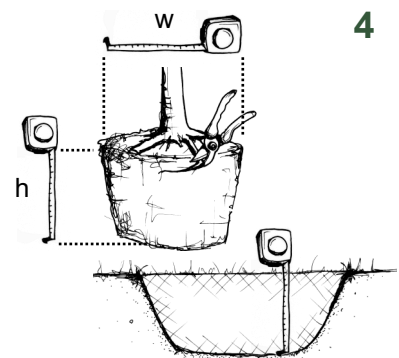
Not all steps are illustrated here. Images are from the *Tree Owner's Manual* courtesy of the USDA Forest Service.



Remove packaging from trunk and branches



Find the trunk flare.



Measure from bottom to flare and measure width to determine how deep and wide to dig.



9. **Backfill** with the same soil or amend as recommended by a soil test. Once the tree is stabilized, continue to backfill with the soil that you dug out. Partway through the backfilling process, water the tree to help remove air pockets and reduce future settling. Continue to backfill. To aid in watering, you can build a low (<3 in.) soil berm around the edge to help guide water to the root ball.
10. **Water.** Water thoroughly after planting.
11. **Prune critical branches, but no others.** Prune only broken or dead branches. You may also want to remove competing leaders, if present. Most trees should have one central leader. If there are two or more leaders, choose the one you want and remove the other(s) Note: You may have to do some of this work before placing the tree in the hole.
12. **Mulch.** Use an organic mulch. Place mulch in a ring at least 3 inches away from the tree trunk, at a depth of 2-4 inches, and ideally out to the tree crown. When in doubt use the 3-3-3 method, mulching 3 inches high, 3 inches away from the trunk, in a 3-foot-wide ring. Do not apply mulch against the trunk of the tree so that it appears like a volcano; this is incorrect and detrimental to the tree, though is often observed in the landscape.

Materials Needed

- Tape measure or yard stick
- Metal skewer, coat hanger, stout wire, or pointed screwdriver
- Shovel, spade, iron rake, wire rake, crow bar
- Sharp knife or scissors
- Hand pruner – bypass type, pruning saw
- Water supply
- Mulch for a 3-inch layer over the planting area
- Large-gauge wire cutter (for B&B trees)
- Hand saw if containerized and the main root system is more than 1 inch below the soil surface

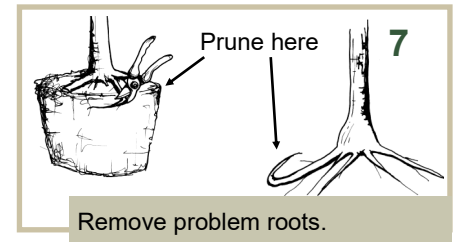
STEPS

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| 1. Move the tree to its planting site. | 5. Dig* a hole to the dimensions from Step 4. | 9. Backfill with the same soil or amend as recommended by a soil test. |
| 2. Remove packaging from trunk and branches. | 6. Remove packaging from the root ball. | 10. Water. |
| 3. Find the trunk flare. | 7. Remove problem roots. | 11. Prune critical branches only. |
| 4. Determine how deep and wide to dig. | 8. Place tree in the hole. | 12. Mulch. |

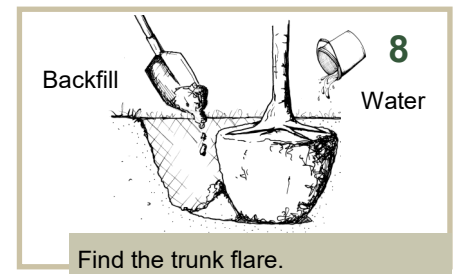
REFERENCES:

For more details (and information on whether to stake your tree) visit: www.fs.usda.gov/naspf/publications/tree-owners-manual-national-edition

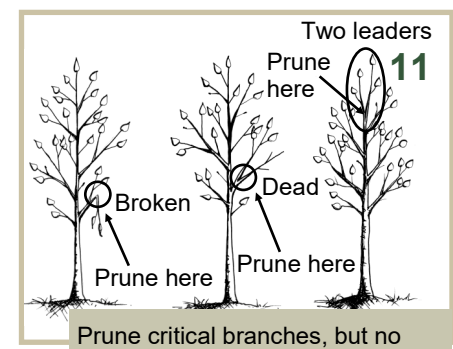
*** Before you dig, call DigSafe to have underground utilities marked. It's the law. Dial 811.**



Remove problem roots.



Find the trunk flare.



Prune critical branches, but no

Bureau of Forestry

Urban & Community Forestry Program

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In Partnership with the Massachusetts Tree Wardens' & Foresters' Association, this factsheet series is funded in part by a grant from the USDA Forest Service.

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