

Planting a Containerized Tree in 10 Steps

BEFORE

1. Choose the best planting location

At least 48 hours before planting, call 800-362-2764, 811, or visit e-dig to request the location of underground utilities near your site.

2. Gather tools and materials

Gloves, Long Pointed Shovel, Soil Knife, Bypass Pruners, 5-gallon Bucket or Hose, Mesh Tree Guard, Wooden Stakes, Tree Tie, Small Sledgehammer, Mulch

3. Examine the tree

Is the soil in the container dry? If so, give it some water to reduce transplant shock and make it easier to remove from the container.

Are there broken, dead or diseased limbs? Prune them back to the nearest lateral branch; don't leave a stub or cut into the branch collar.

4. Prepare the tree

Only move the tree by the container and never the trunk or branches. Remove the tree from its container; gently tip the tree on its side to make it easier.

Find the root flare at the base of the trunk where it flares out into the roots—gently clear away any soil above the root flare.

Loosen the roots by teasing them out from the soil with your fingers. Straighten roots that circle around the root ball and prune those that turn at a sharp angle or point back toward the trunk. The roots should extend radially from the trunk like the spokes of a bike wheel.

Remove nursery tags, tape and bamboo stakes from the tree.

Check out a video illustrating these steps at vimeo.com/540817311

DURING

5. Dig the hole

How deep? The hole should be only as deep as the root ball. How wide? 2 to 3 times wider than the root ball and saucer-shaped (gently sloping on the sides). Digging a broad planting pit breaks up the surrounding soil and provides emerging tree roots room to expand.

Place turfgrass in one pile, soil in another for easy access later.

Rough up the sloped edges of the hole with the shovel to make it easier for future roots to penetrate.

6. Set the tree in the hole

Place the tree in the hole, ensuring that it is straight. Turn the tree, if necessary, so its "best" side is most visible.

The root flare should be at or just slightly above the soil level... NOT below! If the hole is too deep, backfill it with soil; too shallow, dig a little deeper.

Backfill the hole using the soil you just removed, breaking up any clumps to remove air pockets. Gently pack in the soil at the level of the root flare.

Slowly apply up to 15 gallons of water to the backfilled soil to help remove air pockets.

AFTER

7. Berm and mulch

Create a berm by flipping the turfgrass you removed earlier upside down and placing it in a ring around the outer edge of the hole.

Mulch around the tree to a depth of 3 inches and out to the dripline; keep mulch at least a fist-width away from the trunk.

8. Protect and stake

Put a mesh cage or tree guard around the trunk.

Place stakes on either side of the tree and tie a flexible tree tie low on the trunk and at 90 degrees from the trunk to the stake.

9. Water again

Slowly add 15 gallons of water into the mulched trough, allowing 5 gallons at a time to infiltrate before applying another 5 gallons. If using a hose, set on a trickle for 20 minutes.

10. Follow-up care

Avoid fertilizing your newly planted tree.

Set reminders to check your tree the first 3 growing seasons.

Check the soil below the mulch weekly for moisture. If it doesn't rain at least twice a week or is especially hot weather, be sure to water your tree. This care is especially important in the first 3 years of a tree's life.

Adjust stakes and ties during the first 2-3 growing seasons to ensure tree is straight and the ties are not too tight or too loose; remove completely when tree establishes roots into surrounding soil.

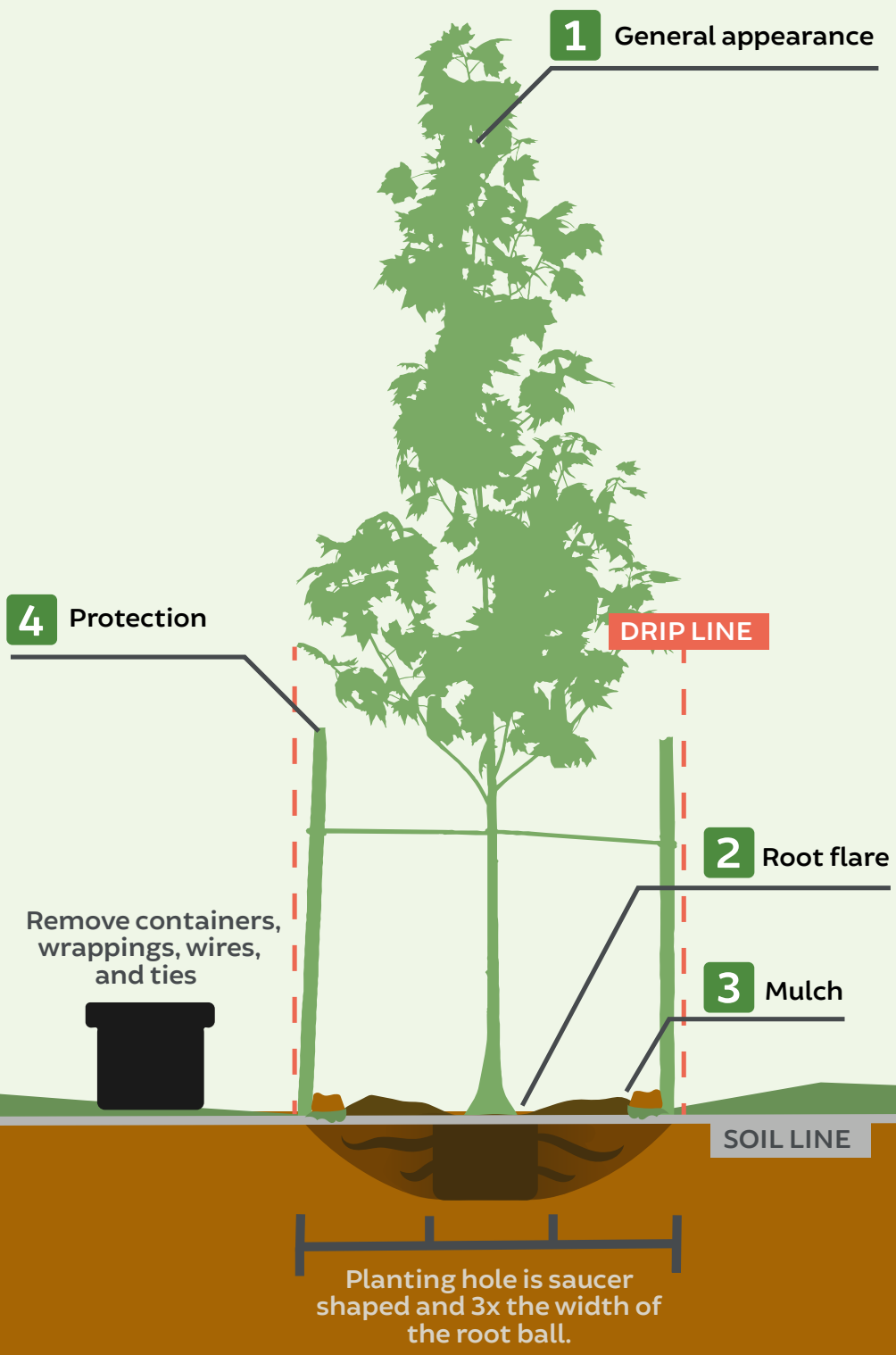
Replenish mulch as needed.

Refrain from pruning for the first 3 years, except for broken, dead or diseased limbs.



There's More to Explore

Visit holdenfg.org for more resources for all skill levels to help your neighborhood bloom with beauty.



1 General appearance

1 GENERAL APPEARANCE

- The tree should have a balanced shape.
- Make sure there are no bare spots in the foliage, missing or damaged limbs, spotted or discolored leaves.
 - The tree should have a single “central leader” (main stem).
 - Check the size of the crown and root ball in relation to the caliper of the tree – should not be top heavy.

2 ROOT FLARE

Locate the area at the base of the trunk where it flares out. This is the root flare zone where the roots meet the trunk. On balled and burlapped plants, the root flare is frequently one to several inches inside the rootball. Untie the twine and burlap and locate the root flare. Remove the excess soil above the flare zone. This will become the soil line. Measure the rootball height from trunk flare to the bottom of the rootball.

Set ball on firmly packed soil to prevent settling. Gently pack backfill, using water to settle soil around the root ball.

3 MULCH

Remove the grass and mulch an 8 ft. diameter circle 2 to 3 inches deep. Mulch out at least to the drip-line, and 2-4” deep. Keep mulch 1 to 2” back from trunk. Maintain a 2-4” layer of mulch from year to year and apply it after the soil has warmed in the spring.



Place uprooted sod upside-down around the edge of the mulch as a berm

4 PROTECTION

Use two opposing, flexible ties when staking is necessary. Ties should be placed on the lower half of the tree and allow some trunk movement.

Summer Tree Care Tips:

Hey you! Drink some water.



IS YOUR TREE THIRSTY?

Did you plant a new tree earlier this spring?

Is it showing signs of transplant stress such as wilting, browning, or curling leaves?

Does the soil surrounding the trunk look like the surface of the moon?

Is it dropping foliage or experiencing early fall color?

If so... it's thirsty! Give it water!

Newly planted trees are like babies. They require a lot of attention the first few years after planting as they expend energy to establish roots into the surrounding soil.

IN THIS GUIDE

IS YOUR TREE THIRSTY?

WATERING TIPS AND TRICKS

HOW TO PROPERLY WATER YOUR TREE

THE DANGERS OF HEAT STRESS

WATERING TIPS AND TRICKS

1. Water trees for the **first three years** after planting. As a precautionary, water **established trees during dry spells** or drought.
2. Newly planted trees require **10-15 gallons** of water 2-3 times/week if there is no rainfall.
3. Prioritize watering trees **growing in full sun, in limited soil space or adjacent to heat-absorbing surfaces** like sidewalks and driveways.
4. To check if a tree needs water, use a garden trowel and dig a few inches into the soil surrounding the root ball. Decide **if the soil has moisture** or if it's very dry.
5. Apply water in the **early morning or evening** to prevent loss to evaporation.
6. Preserve soil moisture by **adding a layer of mulch** around your tree (see Mulch Do's and Don't's). This will reduce evaporation and eliminate competition from other competing plants.



HOLDEN
FORESTS &
GARDENS

SPONSORED BY



HOW TO PROPERLY WATER YOUR TREE



Hose Method:

Place a hose a foot or so from the base of the trunk and run it at a **trickle for 30 minutes**, moving it around the root ball to a **different position every 10 minutes**. This will ensure water doesn't run off the surface too quickly and will infiltrate the root zone.



Sprinkler Method:

Fix the sprinkler head so it **doesn't oscillate**, set it on low and place near the base of the tree - but not on the trunk - for **15 minutes on one side then 15 minutes on the other**. It's a good way to cover more area.



Bucket Method:

If you don't have a hose or it doesn't reach the tree, use a **5-gallon bucket**. Fill the bucket with water and **SLOWLY pour the water to the base of the tree** allowing it to fully infiltrate the soil. Once the first five gallons has infiltrated the soil, repeat two more times so a **total of 15 gallons** of water is applied. Your tree and triceps will thank you!

OR

You can also water with a 5-gallon bucket that you have **drilled holes**, about the diameter of a pencil lead, in the bottom of. **Five holes** is sufficient. Place the bucket at the **base of the tree**, fill the bucket to the top with water, let it drain, move it slightly around the tree and fill it again - 3 times total.

THE DANGERS OF HEAT STRESS

The combination of hot temperatures and little rainfall that characterizes summer weather is a dangerous, stressful condition for trees.

Signs of Heat Stress...

- Leaves wilt and branch tips droop
- Leaves or needles in the interior of the tree turn yellow
- Green leaves start falling off the tree
- Leaf edges become scorched (they look brown, crispy and dead)



Dry soil conditions cause direct damage to tree roots. The roots become dry and nonfunctional causing a water and nutrient deficiency to the tree. Trees that are stressed by drought are less hardy making them more susceptible to pests, diseases, extreme weather conditions, root rot, etc.

Summer Tree Care Tips:

The Do's and Don'ts of Mulching



IN THIS GUIDE

BENEFITS OF MULCHING TREES

WHAT MULCH IS BEST?

HOW SHOULD MULCH BE APPLIED?

WHY IS VOLCANO MULCHING HARMFUL?

BENEFITS OF MULCHING TREES

- * helps to retain moisture around the base of the tree
- * helps control weed and grass growth around the tree, which reduces plant competition
- * insulates the soil, protecting the tree from extreme temperatures
- * adds nutrients to the soil as the mulch decomposes
- * reduces the likelihood of damage from a lawn-mower or a weed-wacker
- * gives planting beds a well-cared for, uniform look

WHAT MULCH IS BEST?

Organic, shredded (double or triple), hardwood mulch breaks down over the course of a season or two, increases the soil's organic content to help beneficial bacteria thrive, and releases nitrogen into the soil to help plants grow.

Dyed wood mulch may have some aesthetic appeal, but dye leaches into the soil, harming beneficial bacteria and robbing the soil of nitrogen.

Inorganic Mulching with rocks, plastic barriers, or rubber should be avoided. These trap heat, don't allow proper oxygen exchange, and deprive trees of nutrients.



SPONSORED BY



HOLDEN
FORESTS &
GARDENS

HOW SHOULD MULCH BE APPLIED TO TREES?

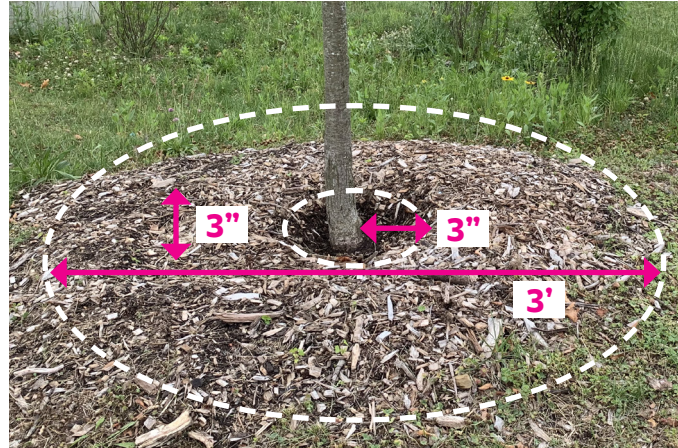
Follow the **3x3x3** rule!

Apply mulch...

No higher than **3 inches**

At least **3 feet** radially from the trunk

About **3 inches** (or a fist's width) from the trunk



Make a **DONUT** shape



Not a **VOLCANO!**

WHY IS VOLCANO MULCHING HARMFUL?

Mulch that is too high or too close to the trunk can cause problems that damage your tree over time.

Too much mulch can...

1. Smother the tree's roots, thus starving them of needed oxygen. In search for oxygen, the roots will often grow up through the mulch causing them to "girdle" around the trunk and cut off water supply.
2. Cause excess moisture to build up between the mulch and the tree's trunk. The excess moisture creates perfect conditions for root rot, which deteriorates the bark and creates an unstable foundation.

HOW TO FIX AN OVER-MULCHED TREE

Remove the mulch volcano by gently digging it away from the trunk with hand tools to expose the root flare, taking care not to harm the roots. If the amount of soil and mulch is significant enough, and there's evidence of problematic roots, consider a professional option such as air knife and root pruning.

AIR KNIFE AND ROOT PRUNING

Step 1:

An air knife removes the mulch/soil while keeping the roots intact and unharmed.

Step 2:

Problematic roots are pruned and removed. Problem roots include:

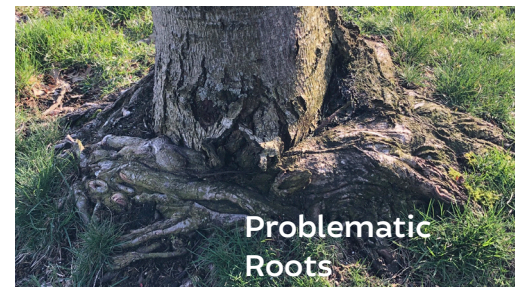
- * roots forming above the main root structure
- * girdling roots that encircle and compress the trunk

Step 3:

The tree is mulched correctly using the method outlined above.



Air Knife



Problematic Roots



Correct Mulching