HOW TO Plant a Tree SUCCESSFULLY

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Did you know that fall is a great time for planting trees? If you missed the spring planting season, there's still time to get trees in the ground this year. Planting in the fall gives trees a chance to establish roots before winter and avoids the harsh heat and drying sun of peak summer.

There are so many great reasons to plant a tree! Adding trees to your home boosts its curb appeal and can increase its value, and a well-placed tree can even save you money on air conditioning costs. You can calculate the benefits a tree can provide with this online tool from Arbor Day Foundation: **www.arborday.org/calculator/**.

Trees clean the air, capture carbon, and improve public health—just looking at greenery like trees can reduce stress. But planting a tree isn't quite as simple as digging a hole and putting in a seedling—not if you want to ensure a healthy tree that will benefit you for years to come. So here are four important steps to planting the right tree, in the right place, and making sure it has a long and healthy life.

Cutting the wire basket around a ball and burlapped tree is important, so the tree's roots can grow.

Step 1: Pick a Site

Deciding where to plant your tree is the first and most important step in planting. Planting a tree is a long-term commitment. To minimize risks to surrounding structures and maximize benefits from the tree, there are several things to consider when selecting a planting location. Picking a site that is appropriate will ensure that your tree can be enjoyed for decades to come.

Consider your space and where you'd like to plant. Grab a pen and paper and answer the following questions about your potential tree site:

- Do you have overhead power lines nearby that you need to be aware of?
- Are there underground utilities?
- How far from buildings and structures (yours and your neighbors) is the site?
- Is the ground flat or sloped?
- What do you know about your soil? Consider its type, acidity level, and compaction. The easiest way to find out about your soil is to request a soil test kit from Cornell Cooperative Extension (CCE). Find your local CCE by visiting the website: **https://cce.cornell.edu/ localoffices**.
- How well does the site drain when it rains? Does it regularly have standing water or is it very dry?
- How many hours of sunlight does the spot get? Put a flag, cone, or other item in the potential planting spot and watch it on a sunny day to get an idea.
- What is the width and length of the planting space? How much space will the tree's branches occupy as it grows?

Having answers to these questions will help you pick the right spot for a tree. Large trees (those taller than 70 feet at maturity) should be planted at least 15 feet away from structures.
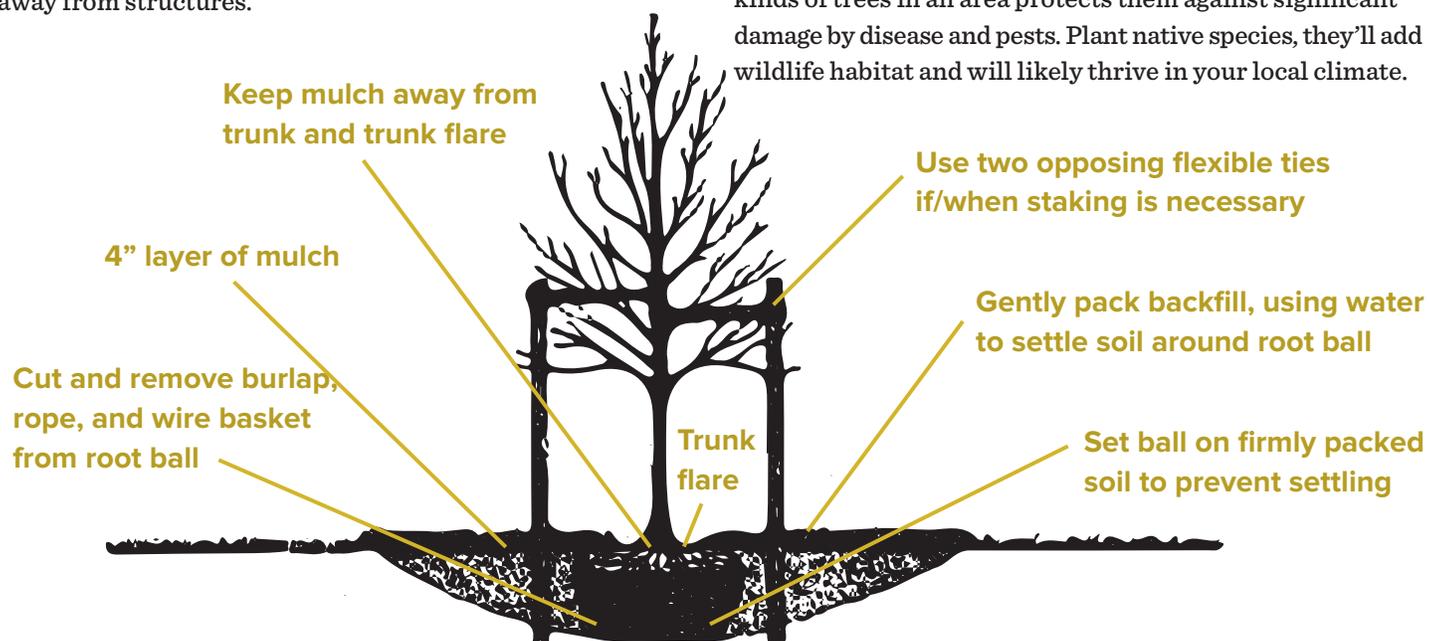
Trees clean the air, capture carbon, and improve public health; so plant a tree today—there's still time to get trees in the ground this year.

Step 2: Pick Your Tree

Now that you have selected a site, you need to pick out a tree. There are several things to consider when selecting a tree to plant. First, determine your hardiness zone to narrow down what plants grow well in your local climate. You can do this by visiting this interactive map from the U.S. Department of Agriculture (USDA) at **https://planthardiness.ars.usda.gov/PHZMWeb/**, and entering your zip code. Pick a tree that will grow well in your zone.

Second, consider the site you selected and review any concerns about overhead power lines or nearby structures. Look at the expected height and size of the full-grown tree and determine if it will fit in your space. Select shorter trees or shrubs if there are overhead lines. If you only have a small space, avoid trees that are large when fully grown, like sugar maples. Look around your neighborhood and try to pick a tree that is unique to your street—having a lot of different kinds of trees in an area protects them against significant damage by disease and pests. Plant native species, they'll add wildlife habitat and will likely thrive in your local climate.

Keep mulch away from trunk and trunk flare

4" layer of mulch

Cut and remove burlap, rope, and wire basket from root ball

Use two opposing flexible ties if/when staking is necessary

Gently pack backfill, using water to settle soil around root ball

Trunk flare

Set ball on firmly packed soil to prevent settling

Step 3: Plant Your Tree

Now that you've selected a site and tree, you are ready to plant. Before you stick a shovel in the ground, make sure you know where underground utilities are located, as they could be damaged or pose a hazard to you as you dig (call 8-1-1 or visit **www.digsafelynewyork.com** for more information).

The tree you've bought might be balled and burlapped, container grown, or bare root. No matter which form it is, be sure to water it and keep its roots moist until you are ready to plant. Each form has its pros and cons, and a specific way that it should be planted.

Balled and burlapped: Dig a hole as deep as the ball and two to three times its width. Once the ball is centered in the hole, remove the twine and wrap from it. Backfill the hole, firmly pack the soil, and water deeply.

Container grown: Dig a hole three to four times wider than the container. Remove the tree from its container and carefully untangle and loosen the roots and soil. Vertically cut any roots that encircle the root ball to prevent it from potentially strangling itself. Plant the tree and firmly pack soil around it, then water deeply.

Bare root: Soak tree roots in water for a few hours, or up to 24 hours, before planting. Dig a hole wider than the roots are long and as deep as the root system, then loosen the soil in the hole. Plant the tree, firmly pack the soil, and water deeply. Make sure the tree is not planted too deep. The root collar should be at, or slightly above, ground level. Do not pile mulch or soil against the tree trunk—deep piles of mulch, known as mulch volcanoes, kill trees.

Richard Ball

Elizabeth Moss, West VA State University, Bugwood.org

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Step 4: Care for Your Tree

To keep your new tree healthy and help it establish roots, make sure to water it at least once a week if it has not rained, and more often if the weather is hot and dry. Mulching around the base of the tree will protect it from lawn mowers and weed whackers, and help maintain moisture—but, remember, don't pile mulch against the trunk. If deer are a problem, protect the tree with a tree tube or fencing for the first few years. If your tree needs extra support, protection, or help staying anchored, you can stake it, but be sure to remove the stakes by the next growing season.

As you care for your tree during the first few years of its life, keep in mind the phrase "Sleep, Creep, and Leap." The first year, the tree will sleep—it may not grow much above ground while its roots develop and establish. The second to third year, the tree will creep—it will begin to grow a little as it settles into its space. The third to fourth year, the tree will leap in size, as it has established itself and begins to thrive.

The benefits that trees provide are innumerable and incalculable. By following these simple steps, you can experience these benefits at your home. For more resources and help on planting and caring for your urban or suburban tree, visit DEC's Urban and Community Forestry webpage: **www.dec.ny.gov/lands/4957.html**.

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