

Street Tree Bed Care: Give Trees a Chance!



BROOKLYN BOTANIC GARDEN Community Greening

Street trees do much to improve our lives—cleaning the air we breathe, relieving the heat island effect, and giving city dwellers contact with the natural world. But urban trees have it hard. They suffer from drought, lack of growing space, and infertile, compacted soil. People throw trash at them, slam car doors into them, and let their pets use tree beds as litter boxes. Paying attention to tree beds—those small sidewalk openings for street trees—can do wonders for the health of the trees growing in them and improve the beauty of your block. Here’s how you can give street trees a fighting chance:

Improve the Soil

The soil in an average tree bed is sad to behold: compacted, infertile, tainted with salt, and often very alkaline. Follow these steps to amend the soil:

- In spring, flush the tree bed with lots of water to help remove salt deposits in the soil. Scattering salt to deice sidewalks can severely damage trees; use sand instead.
- With a hand cultivator (a tool that looks like a three-pronged claw), loosen the soil gently ½ to 1 inch deep.
Most of a tree’s roots lie within the top 18 inches of soil, so be very gentle!
- Mix in a thin layer of compost (no more than ½ inch) every year.
- Add a layer of mulch 2 to 3 inches deep, being careful to keep it at least 6 inches away from the tree trunk. Mulch smothers weeds, helps retain moisture, and makes good compost when it decomposes. Replenish the mulch as it breaks down, and replace it every spring to remove toxic salts from winter snow removal.

Water

Even without a drought, tree beds are so small that not enough rain falls onto their soil to adequately irrigate the trees. You can help by watering new trees with about 15 to 20 gallons of water a week. A mature tree needs 8 to 10 gallons a week during the hot season. The key is to water slowly: Set up a hose to trickle into the bed for an hour; or prick a few holes on one side of a clean garbage can, set it next to the tree bed, and fill it with water. A layer of mulch also helps conserve moisture, so always mulch your tree beds.

Keep the Tree Bed Clean

Regularly removing trash and animal waste from the tree bed tells passersby, “Someone cares!” It’s true, picking up trash isn’t as glamorous as planting flowers, but your tree will love you for it. Consider posting a small sign in the tree bed asking people to curb their dogs and not litter.

Install a Tree Guard

Guards help protect your tree from animals, foot traffic, and car and bicycle abuse. Even the simplest guard creates a psychological space around the tree that alerts passersby that the tree is important to the block. An easy, do-it-yourself way is to drive four sturdy wooden stakes or lengths of pipe in each corner of the bed. Make sure the tops of the stakes are at least 18 inches high and rounded so pedestrians can't be hurt by them. Drill holes through the stakes or pipes, then loop rope or chain through them. If you hire a metalworker to create a guard around the tree bed, make sure the guard is on the edge of the bed and doesn't touch the tree. Also make sure the guard allows rainwater to flow from the sidewalk into the bed. Note: Installing a guard around any city tree requires a permit. For more information about guards, visit stewardship.nycparks.org/library/treeguard.php.

To Plant or Not to Plant

When there's barely any ground to garden, it's natural to want to garden in a tree bed. Annuals, perennials, and bulbs can be beautiful additions to a tree bed, as long as you remember that the tree's health comes first. Flowers let passersby know you are taking care of your street tree. Wilting flowers in the tree bed are also a good reminder to water; as you water the flowers, the tree will also get a drink.

If you're not careful, though, planting in tree beds can do more harm than good! How? Overcultivating the soil to plant flowers damages the tree's roots, as does raising the level of the soil in a tree bed. It may not become apparent for several years, but such damage will shorten the life of your tree. Roots need oxygen, which they get from air bubbles trapped in soil. When too much soil is piled up, the air is pressed out. Without oxygen, roots die, and without a strong, healthy root system, the tree will die.

In addition, moist soil or mulch mounded up against the base of the tree can cause the bark to rot, providing entry for pests and diseases, and create a home for rodents to eat away at the tree base. Rotten or damaged bark at the base of the trunk can also "girdle" a tree, or strangle it to death. When a girdled tree dies, it can topple over from the base, often causing a lot of damage.

Here's how you can plant in the tree bed without harming your street tree:

- Don't raise the level of the soil. Use a hand cultivator to gently loosen the soil to a depth of ½ to 1 inch. Mix in a ½-inch layer of compost.
- Plant flowers or groundcovers with shallow root systems to avoid disturbing the tree's roots to a great depth. Try small annuals like impatiens or a perennial groundcover like periwinkle (*Vinca minor*).
- Avoid ivy, which can climb and thus damage trees; it's also a water hog and a favorite habitat for rats.
- Small bulbs are good; try crocuses (*Crocus* species), miniature daffodils (*Narcissus* species), and glory-of-the-snow (*Chinodoxa* species).
- Stay clear of large shrubs and water-hungry plants.

Hints for Newly Planted Trees

Immediately remove the burlap wrapped around the trunk and any tape or wire used to hold it in place. Left in place, the burlap could keep the trunk wet and cause rot, and tape or wire could girdle the tree. After a year, remove any guylines and stakes so the tree can grow and move freely, which improves tree strength.

Take care of street trees—for a healthier city and a healthier you!