

## What Does My New Tree Need in the Early Years?

Article #6 in the Series “So, You Want to Plant a Tree!”

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At this stage in the series of articles on planting trees, the assumption is that you have indeed planted one or more trees and are ready to start enjoying a long and happy relationship with them. Realizing that expectation may require special attention to several aspects of healthy tree growth as the tree(s) negotiate its (their) first years in the new surroundings. Here are my top three factors you should consider, starting with THE most important one – water.

### Water

If there were one super-message arising out of my reading of the excellent Watson and Himelick book entitled “The Practical Science of Planting Trees”, it is the fundamental importance of water. A new tree planted in a perpetually wet soil, or one given a barrel of water daily, would probably get too much water. However, the vast majority of situations present as too little water. Remember, all the roots of a young to-be-planted tree are in the pot or ball, or even just hanging from the bottom of the stem when it comes to bare-root stock. A first order of business for a planted tree is to grow the roots into the new soil environment around the planting hole. This is vital for both growth and stability. Root growth will be slow unless the tree gets plenty of water. This is especially the case when soil conditions are dry.

Consider this. The average monthly precipitation for Halifax (i.e., the climate normals) is in excess of a hundred millimetres (mm) for all months except August, which is in the nineties. But in any one year, we don't get the average, which is a calculation using 30 years of data – we get the actual, which can be quite a bit higher or quite a bit lower than the average. Last year, we had a period of at least a month of no rain at all in late August through much of September. This year – well, THIS year has witnessed pretty much a way-below-normal situation since the beginning of the calendar year. That gave us the tinder-dry conditions conducive to the large, destructive forest fires raging in early June near Halifax and in Shelburne County.

I have written about a tree-planting experiment on Lawrence St. – see Note #03 at this address - <https://www.halifaxtreeproject.com/lawrence-st>. Last summer I watered the 16 new trees in the street 14 times between late June and late September. I watered them again on 22 May (two weeks ago), but now, in the first days of June, we have already received roughly 100 mm of rain (measured in my at-home rain gauge), so they will not need to be watered for a couple of weeks at least. If this summer is characterized by near- or above-normal rainfall, with well-distributed, significant rainfalls through each month, the little trees should be fine. But if temperatures soar (which can give trees heat stress if they have too little water) and rainfall is sporadic, I will be watering the trees as needed.

In sum, expect your newly planted trees to be thirsty pretty much all the time through summer!

## Protection

What do little urban trees need protection from, you might ask? Depending on the neighbourhood and the size and location of the tree, from browsers (such as deer), soccer balls, vandals, playing children, dog urine, grass-cutting equipment – the list could go on. Here is my suggestion – I put a ring of wood-chip mulch around the tree, perhaps a 50-cm circle but larger works too if you have room, to thwart the growth of grass and other small plants and to hold moisture. Then I put three stakes in a triangle formation around the tree perhaps 30-40 cm apart (see photo below). If the tree deserves to be tethered (see below), then one of my stakes is tall (say, 100 or more cm out of the ground), and the other two are perhaps 30-50 cm out of the ground. Some people encircle a set of stakes with various forms of plastic netting for added protection. HRM protects new street trees with a perforated plastic sleeve encircling the stem – this is mainly to prevent damage from lawn-mowing gear.



## **Training**

There are two aspects of training for me to cover here. One has to do with how vertical the tree is in its site. Sometimes a potted sapling is somewhat crooked and planting it vertically is impossible. So one would do the best one can with the planting and then use a tether to gently pull the tree more upright. Tethering also helps keep a new tree from blowing over or even down on a windy day. The key with tethering is to: (a) keep it rather loose and gentle around the stem; (b) put it at an appropriate height; and (c) leave it on only for a short time (couple of years max). Long-term tethering of young trees can prevent the proper strengthening of the stem so that it can build up resistance to bending and breakage during wind events.

The second element of training addresses judicious pruning of branches. Sometimes a branch seems to go off in a risky direction – say, into the street where cars and bicycles pass or park, or into the wall of a house. Sometimes branches remain low on the trunk and impede visibility from one side of the tree to another (should this be important). Sometimes branches are headed for low-hanging overhead power lines and one can predict a future conflict. Finally, sometimes branches have awkward attachments to the trunk and may be prone to breakage in later life. You could hire an arborist to prune a young tree – arborists have training in this work. If you decide to do it yourself, be sure not to leave stubs! Prune to a bud, twig, or other attachment point. Don't cut so deep into the stem that sealing over the wound will take forever. And don't paint anything on the wound – let the tree take care of it.

## **Conclusion**

So, now you've planted a tree and given it a good start. The hope, indeed the reasonable expectation, is decades of joy experiencing your new tree through its life stages. Depending on a range of factors, the tree may well outlive you, and your successors at the planting location will appreciate the great job you did in establishing the tree and giving it good conditions to thrive. With the right species, location, and treatment, you will have made a relatively small investment for a lifetime of payoff in terms of the diverse benefits that accrue from an urban tree!