

Urban Sugaring

By Eric Olson

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You may think maple syrup can only be made by the hardy farmers of Vermont, but my kids learned differently several years ago, when we moved back to New England from Costa Rica. I had tapped sugar maples while teaching environmental education in Minnesota, so it seemed natural as we settled into our new life in West Newton to scout around for maple trees. This proved as easy as falling off a log. Our neighbors on the right have a gnarly old sugar maple that may someday grow so big it will displace part of our driveway. And the neighbors on the left have a towering *Acer saccharum* (the scientific name) that has grown straight as an arrow for 100 plus years, and is now one of the tallest trees for miles around. Permission was secured to tap at will, by our first spring in Newton, we were collecting sap and making syrup.

You can do this for under a nickel per tree (not counting the energy cost to run the stove), but first a word of caution. The growing and consumption of any urban plant foods raises concerns about soil contaminants. Heavy metals like lead and arsenic were used as pesticides in Newton's apple orchards long ago. Lead was also an ingredient in gasoline. We were proposing to get sap from big trees right on Watertown Street, aka Route 16. And just steps away from several houses, where lead was typically used in the paint. Heavy metals are elements so unlike DDT and most other synthetic chemicals they simply never break down. Recent research at Dartmouth has confirmed that old orchards now used as suburban housing tracts contain worrisome levels of these chemicals.

We found a local testing lab to analyze our saps and syrups for residues of these toxins. The results were favorable -- lead was detected, but far below Vermont's maximum permissible level in maple syrup. We broke out the pancake mix as soon as we opened the envelope from the lab! Our results should not be taken as a green light for all of Newton, however, since it is the exact location of orchards that determines the presence of lead in the soil today. Testing is essential.

Here are the steps involved in sugaring.

First, find a big sugar maple, using a field guide to trees. Norway maples will not do at all, and silver and red maples make a much less concentrated sap. Sugar maples are handsome trees with a distinctive leaf shape (think Canadian flag) and big, gray, platy bark. The leaves turn brilliant orange in the fall.



The author's son Eli Olson presents the two-spout sugar maple on Watertown Street, tapped by the family each spring

Next make a spile. Take a 3/4 inch dowel, drill a hole about 3 inches deep into one end with a 1/4 inch drill bit, then saw off the drilled piece. You should have a perfect little wooden tube that you must taper a bit at one end with a sharp knife. The whittled end must be perfectly round, so you may need to make a few of these before you get it right.

Now locate a brace and bit (a kind of old drill). The bit diameter must be a little smaller than the wide end of the dowel, but a little larger than the tapered end. On an early spring day, sometimes as early as February, when the days are just above 32 F but the nights are still cold, drill a hole no more than three inches deep into the bark of the tree, pointing the bit slightly upwards as you go so that the sap drips out well. Pick out stray bits of sawdust and bark, and firmly tap in your wooden pipe, but not so hard that you split the bark. The spile must be snug or sap will leak out around it. About 1 inch of spile should go into the hole, with two inches protruding. If it's warm a few drops of sap will fall from the tube within minutes. Cut a hole in the side of an empty clean one-gallon plastic milk jug, set it on your spile, and secure it snugly with wire around the tree. Taste the cold sap, a slightly sweet refreshing drink.

Finally, transfer your sap to pots on the stove and boil away for a long while. Check the Cornell University maple syrup website for details. It takes 40 cups of sap to make

one cup of syrup. Watch closely once the sap boils down and starts to brown, so as not to fill your house with smoke and a charred sugar smell. Use a candy thermometer. When it's syrup, the boiling liquid will make a tan foam of very fine bubbles. If you boil too long at this point you will have maple sugar when it cools---you just need to experiment some.

At best, we get a couple of quarts of syrup from our two weeks of urban sugaring, with two taps in each of those two big trees. Its not volume that counts, though, but the good fun of getting an amazing sweet food from nature at a time of year when our backyard garden plots are barely emerging from under crusty old snow.

Sugar maples are found only in the northeastern part of North America as far west as Minnesota, and their range will shift northwards as the planet warms, so enjoy this tradition while you can.