

Making syrup in the city

You don't need a full-on forest to harness the sweet potential of maple trees

By Ashley Stimpson

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Jethro Heiko and his family moved from downtown Philadelphia to East Oak Lane, a leafy neighborhood on the city's north side, in 2018. They loved the novelty of having a backyard full of trees, including hemlock, birch and catalpa. But one tree stood out: a century-old sugar maple, as wide as a coffee table, that towers over their Arts and Crafts home. That tree inspired Heiko's wife, Chelsea, to give him a maple-tapping kit for Christmas the following year.

By the end of that winter, the massive tree had produced approximately 35 gallons of sap, which Heiko boiled down to a half-gallon of syrup. Had this been any other year, Heiko may have seen the experience as a fun new hobby. But come March, right around the time the sap stopped running, the world did too.

As covid lockdowns began, Heiko had plenty of time to look out his window and notice all the other sugar maples that lined the street. "I realized there was a lot of inventory in the neighborhood," he says, "maybe not a Vermont forest's worth, but hundreds of them."

Heiko, a community organizer by trade, did what he does best: he knocked on doors to talk to his neighbors about the sweet potential of their trees. "They thought I was a little nuts."

But this was 2020 — everyone was a little nuts.

The next winter, Heiko and his neighbors tapped 40 trees and produced about 20 gallons of syrup, enough for each member to get a quart, with some left over to sell at the farmers market. In the years since, the impromptu co-op, now called [Oak Lane Maple](#), has grown into a full-fledged sugarbush (the term for a stand of trees used to make maple syrup).

While many of us imagine a frigid New England forest when we get a whiff of the sweet stuff, a growing contingent of urban sugar makers are tapping trees much closer to home, connecting city dwellers to one of the [oldest forms of agriculture in North America](#).

Something sweet in the neighborhood

The [Somerville Maple Syrup Project](#) outside Boston has been tapping trees and hosting community “boil downs” since 2000. The initiative of the Somerville Community Growing Center, a quarter-acre of green space in the middle in New England’s [most densely populated municipality](#), was devised by two teachers hoping to give local students a hands-on science lesson.

“We put notices in the paper asking if residents wanted their sugar maples tapped,” says Lisa Brukilacchio, who has worked on the project since it began. “Students went around in a van to meet all the trees and learn about how to tap them.”

A local food pantry provides refrigeration for the sap before each boil, and a restaurant opens its kitchen for the group to finish the syrup (the last stage in the boiling process, which requires a more controllable heat source than a wood fire). The boil downs, which happen between refrigeration and finishing, are the most popular part of the project, with sweet-smelling steam filling the city’s streets from morning to night.

“It’s a wonderful, happy community event,” says Paula Jordan, who’s volunteered with the project for 15 years.

Straight from the tree, maple sap is only about 2 percent sugar. To transform it into a topping worthy of a short stack, the sap must be boiled down to a much sweeter 66 percent sugar, a process that takes many hours and lots of horsepower. Commercial producers rely on reverse osmosis machines — which filter a decent bit of water from the sap before boiling — and powerful evaporators. Small-scale producers, on the other hand, must get scrappy.

According to [Mark Isselhardt](#), maple specialist at the [University of Vermont Extension](#), experimentation is a hallmark of the industry. “There’s a great tradition of being inventive, industrious and thrifty when it comes to making syrup, and that leads to some really creative techniques or equipment being used.” Urban sugar making is no exception.

Recently, Heiko handed the reins of Oak Lane Maple over to urban farmer Nick Lodise and [Wyncote Academy](#), an alternative high school where students boil sap in fancy equipment paid for by a USDA grant, but Heiko’s early days involved a lot of trial and error.

“I didn’t quite realize how much energy it would require evaporating the sap,” says Heiko, who first tried an electric hot plate. “I couldn’t even get the pot to boil after six hours.” Eventually, he found success with a banquet tray set over a double-burner turkey fryer.

As Heiko’s sugarbush grew into hundreds of trees, another hurdle was the sheer volume of all that sap. Large operations use vacuum tubes to funnel it to a central location, but in an urban setting, sugar makers must collect sap by hand.

In 2021, Heiko invested in an old Ford Econoline, also known as “the Maple Van.” On collection days he and his teenage son “would hang off the back like garbage men,” hopping off to empty small buckets into a larger tank in the van. To store the sap — which can spoil quickly if it’s not kept cool — Heiko retrofitted an unfinished closet in his basement into a makeshift refrigeration unit.

Tap ONE in Vermont operates in a downtown neighborhood in Burlington. The idea, says co-founder Ada Dunkley, was “to bring a rural Vermont tradition to a more urban area with a more diverse population ... especially for people who maybe haven’t seen it before.”

Dunkley says that even in a maple-centric place like Vermont, there’s no shortage of “amazement and wonder” at the boils, as clear, unremarkable sap transforms into a golden, caramelly syrup.

“It’s basic evaporation science, but it kind of feels like a miracle,” says Maeve Poleman, another co-founder of Tap ONE.

How to start an urban maple project

“One of the beauties of maple is there’s no barrier to entering the industry,” Isselhardt says. “Tap a few trees and make syrup.”

Having some baseline knowledge is helpful to avoid damaging trees or burning syrup, Isselhardt says. If you need help, try reaching out to your local university extension. And, he adds, people need to make sure they’re using appropriate (i.e., food-grade) equipment to avoid introducing contamination to the syrup. While metal sap buckets are iconic, they may contain lead, so stick with plastic.

Maple sap typically starts flowing in late winter, when nighttime lows fall below freezing and daytime temperatures hover in the 40s or 50s. This [freeze-thaw cycle creates pressure](#) in the tree that causes the sap to drip from a spile, the metal tap driven into the tree. When to tap is an [annual guessing game for sugar makers](#). Tapping too early can give time for microbes to gunk up the lines; tapping too late can mean missing a big sap run. Because sap flow is entirely weather-dependent, most people keep an eye on the forecast and tap a few days before the right conditions. Once buds appear on the tree, tapping season is over.

If sugar maples don’t grow in your area, other trees such as birch, box elder and walnut also contain relatively sweet sap, but it may require more sap and a longer boiling time to produce syrup. The ratio of sap to syrup for a sugar maple is about 40 to 1, while 60 gallons of box elder syrup are needed to make a gallon of syrup.

Finally, Poleman says, boils are best done with buddies, as going from sap to syrup will take all day. “The beauty of the process is how long it takes — that’s what makes it so sweet.”

Ashley Stimpson is a freelance writer in Columbia, Md.