



*Finished syrup catches the light on a sunny winter day.*

*Image credit: Lisa Crandall*

# THE SWEETEST TASTE

## Making your own Maple Syrup

By Lisa Crandall

If you have access to a maple tree, making your own maple syrup is simple, requiring mostly time and patience.

The process is very straight forward. The sap that comes out of the tree needs to be boiled down to remove most of the water component. The ratio is approximately 40:1. So for every gallon of maple syrup you want to end up with you need to start with 40 gallons of sap. A healthy tree tapped on a south facing side can produce three to four gallons of sap or more per day from a single tap. Larger trees can support more than one tap without it causing undue stress.

The required tools are easily available – containers to gather the sap, big pots to boil it in (the size you'd cook lobster in or make stock) and a source of heat to do the boiling. The only specialized equipment required are the metal or plastic taps (aka spiles) you insert into the holes you drill into the trees. This time of year, they can be found in places like Home Hardware, Canadian Tire, TSC and BMR (Rona). A set of ten aluminium spiles or taps costs between \$20 and \$25.

When I started making syrup, I used plastic juice bottles on the trees and collected the sap in 4 litre water bottles in the snow bank. Once I had enough sap to fill my big stock pot and started boiling off the water, (a process referred to as evaporating) I quickly learned that doing the initial boiling off indoors was not a good plan. (you end up with a steamy sticky kitchen) Now I do the evaporating in the yard over a cinder block

fire pit. Friends use their gas BBQs and more ambitious inventive acquaintances have built bigger and better back yard systems. It all comes down to the same process – boiling off the water.

Sugaring season starts when the days are regularly above zero and the nights are still below freezing. Typically in this part of Ontario that happens between mid-February and early April. This fluctuation of temperature is what triggers the movement of sap from the tree roots and up into the trunk and branches of the tree.

### Not Just Maple Trees

*You can tap other trees to create sweet tasting syrups, but they might not be worth the effort. Syrup from the black walnut is about the same as maple at 40:1, but the sap production is much lower, so it takes longer to get enough sap. For birch trees the ratio of sap to syrup is 110:1. That's a lot of sap.*

In preparation to gathering sap you need to tap the trees by drilling a hole into the tree trunk and setting the tap or the spile, which will allow the sap to drip into your container. The tap also includes a hook for you to hang your container on. The container needs to be sturdy enough to support its own weight when it is filled with liquid. Many of the clear plastic containers juice comes in (1.63 to 2 L sizes) will work just fine. You just need to empty them more often. A couple of years ago I invested in a few two-gallon sap pails

with lids. They are easy to clean, stack and handle. Make sure you get lids though or you'll be picking bugs out of your sap when you gather it. Yes, there are bugs flying around in February!

Put your tap in on the sunniest side of the tree. Use a 7/16th inch drill bit, make the hole 1 ½ to 2 inches deep into the woody part of the tree, angle the bit slightly upward so the sap runs down into your container. In order to make sure your tap and bucket are not going to be too high or low, try to place them somewhere between your hip and your chest area.

Depending on how generously your trees are flowing (and the size of your containers) you may have to collect the sap more than twice a day. With the 2-gallon sap buckets I generally go out before lunch and around supper time. As the temperature drops in the evening the sap will stop running.

The next step is removing the water. This is a simple matter of boiling it away. If you are holding your sap until you have enough keep it chilled and out of the sun. You can keep it in a snowbank in the shade or repurpose that second fridge in the garage. If you can safely leave it out overnight (covered) you can remove the ice first thing in the morning and it will help reduce the water content of your sap because the ice is mostly frozen water.

Boiling the sap down to water is a long process. Remember you are going from 40 parts sap to 1 part syrup. A broad deep

pan is the most efficient. The technique at this stage depends on who you ask. Some people just keep pouring in sap as the level in the pot/pan gets lower. They tend to get friends together and stay up all night boiling it off. I personally tend to boil it down in batches over several days, combining batches as I go.

The syrup is finished when it reaches the color and thickness you find pleasing. If you want a more scientific description, check it out on the internet.

When you think you are getting close to your finished product it is always a good idea to filter it to remove the 'sand' or niter that precipitates out of the finished syrup. Otherwise you can end up with a little mound of hard sweet sediment at the bottom of your container when you open it after it's been stored for a while. A pair of coffee filters works perfectly well if you are just experimenting. A jelly bag is not fine enough to work for this process. Hot liquid (not boiling) is easier to filter, but be careful, this is liquid sugar and it burns your skin. Some articles suggest that the filtering should be the last step before bottling, but I prefer to do it before that final boil.

To finish off your syrup put it back into a clean pot. Make sure it is only about 1/2 full because it will boil up and over unless you are extremely vigilant. Bring your almost finished syrup to one last boil, use a candy thermometer to make sure you hit 4 degrees above the boiling point of water (generally 104 degrees Centigrade or 219 Fahrenheit) and then pour the syrup off into bottles. I use quart and pint size mason jars.

It's time to stop collecting sap when the nights are consistently above zero. Use pliers to pull the taps out of the tree and the tree will heal itself. This time next year you should be able to see the healed spot and you should try to avoid putting the tap into the same place.

If you decide to give this a try this year good luck, and fair warning, it can be addictive.

**LH**

*If you are not up to the task, then in our area there are Maple Syrup farms that open usually in March-April for the season and provide weekend fun for families with Pancake breakfasts and tasty syrup treats. The Maple Syrup Festival in Delta is a great annual event and will be held this year in April. Look for their Facebook and website for details and events.*



*Image Credit: Lisa Crandall*

**A cinder block fire pit works well for evaporating sap.**



*Image Credit: Lisa Crandall*

**Working with my biggest pots to reduce the sap to syrup.**



*Image Credit: S. Brown*



*Image Credit: S. Brown*



*Image Credit: Courtesy of the Carr Family*



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**Inspired by memories of helping his grandparents make maple syrup S. Brown's teenage son built an evaporator from a re-purposed fuel drum, the metal frame of a generator and an exhaust pipe from a truck.**

**Tucked into a car shelter to get it out of the weather. Hank Carr says he watched a lot of YouTube videos and looked at a lot of designs before building his system. He uses tubing and a reverse osmosis system to increase the amount of sap he gets from his trees.**