

Backyard Sugaring

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Sugaring. That's the term used for the process of gathering sap from trees (usually maple) and turning it into syrup. The tree's anatomy makes it possible to rob the tree of a bit of sugary sap without hurting it.

When a tree is "tapped" to allow sap to flow out and be collected, a device is inserted through the bark into the phloem of the tree. The phloem is the thin, spongy layer of living tissue right under the bark that carries dissolved sugars and other nutrients up and down the trunk. This is why sugaring season is the period, usually late winter, when the days are above freezing (sap goes up) and the nights are below freezing (sap comes down). Just underneath the phloem layer is the cambium layer, which is actually the growing part of the trunk. It allows the tree to heal quickly when the tap is removed.

Trees, even Sugar Maples, vary in the percent of sugar in their sap. While the stated "average" is about 2%, it can vary from 1.8-8.4%. The percent of sugar varies with the season, which stops when the trees start to bud out. Since sugar production is increased by the sun's power, trees in sunny spots will have sweeter sap. There will also be better sap production on sunny days, or from taps under a large branch on the southern (sunnier) side of the tree.

The percentage of sugar in maple syrup is 66%. Maple syrup boils at 219 degrees Fahrenheit. Water boils at 212 (at our elevation). This means to produce syrup from sap, you have to boil off about 35 gallons of water to make one gallon of

syrup. It is NOT recommended to do this inside—your house will be very humid and sticky. If you decide to try it at home, do the bulk of the boil outside and when the liquid hits about 216 degrees, bring it inside for the final, more supervised boil. It is easy to take it too far too fast and end up with a burned, sticky mess for your day's work. (This is from the author's experience.)

The exact process includes choosing your tree(s), drilling and tapping your trees, and installing tubing to run to a collection container. When you have at least 20 gallons, you can start to boil (outside). You will need to be around to skin foam as the boil continues, but it won't need constant supervision. Finishing your syrup will include filtering and jarring it when it hits the 219 boiling point.

While Sugar Maples are generally the best to tap, you can also use Black, Red, and Silver Maples. Box Elder, a type of maple, will also work if you can find a big



enough tree.

More detailed instructions are available on-line. Books and videos abound. A good fact sheet can be found at <https://extension.umaine.edu/publications/7036e/>.

For information on the Maple Syrup program in Ohio, including a sheet on identifying Sugar Maples, check this page: <https://agmr.osu.edu/specialty-crop-business/maple-syrup>

While making your own maple syrup is a bit time consuming, the reward is very sweet. It is the first “crop” produced from the land every year. Enjoy!

