



# LIQUID GOLD

## THE MAKINGS OF MAPLE SYRUP

**By Todd Romero**

**A**s the end of winter draws closer to the vernal equinox, the sun gets higher in the sky and mother nature ushers in another spring season. Folks start making plans for their gardens, digging for early ramps, and swapping out their skis for

boats, bikes, and climbing gear. The transformation from late winter to spring also creates the perfect conditions for prized sap to flow from sugar maple trees. Sugarmakers all over the northeast eagerly collect the sweet sap to transform it into the amber-colored liquid gold commonly known as maple syrup.

If you've ever driven around the rural country sides of the northeast, you've probably seen buckets hanging from trees and blue tubing strung through the forests like a calculated matrix of webbing. These elaborate systems collect ample amounts of sap from the sugar maple (*Acer saccharum*). While these images are commonly associate

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with the northeast, we also have an abundance of maple trees and a climate conducive for producing maple syrup right here in Central Appalachia.

To make syrup, sugarmakers start by tapping trees to collect sap. This happens near the end of winter when temperature cycles are ideal for the sap to run, or flow, from the tree long enough to collect a substantial amount. The requisite temperatures for sufficient sap runs are daytime temps around 40°F and nighttime temps below freezing, preferably in the 20s. Pressure is built up during these freeze-thaw cycles, which causes the tree to push sap containing water, minerals, and sucrose to its upper portions. High up in the crown, this sap provides the tree with the resources it needs to start budding in spring. The abundance of sugar maples throughout our steep hills and hollows is advantageous for building tubing systems and collecting sap using nothing but gravity.

The sugar maple is the state tree of New York, Vermont, Wisconsin, and West Virginia. The three northeastern states rank in the top-four maple syrup-producing states in the U.S., and Vermont tops the list with over two million gallons of syrup produced each year.

Although West Virginia has more sugar maple trees than Vermont, the Mountain State produced just 14,000 gallons of maple syrup last year.

That number, however, is on the rise. Several initiatives seek to boost production of maple syrup in West Virginia. Future Generations University in Franklin is working with local producers to harness the latest technologies to increase efficiency and production. Experience Learning, an outdoor education program located on Spruce Knob, runs Maple in the Classroom, a travelling program that fosters youth interest and teaches children how to tap trees and make syrup. The Eastern WV Community & Technical College works with the WV Maple Syrup Producers Association to host Mountain State Maple Days, a showcase for syrup producers. The fourth-annual event is being held on March 21 and coincides with the WV Maple Syrup Festival in Pickens, creating a state-wide celebration of all things maple.

Present-day methods of collecting and processing sap have significantly improved. Sugarmakers drill 1.5-inch holes deep into trees and install spouts (or spiles) to allow the sap to flow into a vessel or a tube system that runs downhill into a collection tank. The

sap is then boiled and concentrated into syrup. It takes an average of 40 gallons of maple sap to produce one gallon of syrup, but just one tap in a tree can produce a few gallons of sap per day. Sap officially becomes syrup when its temperature reaches 219°F (7°F above the boiling point of water). Commercial syrup is tested for density to ensure it is 66% sugar content.

It's extremely easy to make your own little stash of syrup using only your kitchen stove. Although it may take a while, boiling five gallons of sap will produce about a pint of delicious, homemade syrup. On a positive note, you can humidify your home while you're at it!

If you love maple syrup and have access to a few maple trees, try and make your own. It's a fun family activity, and you may get enough of a sugar high to want to make more every year. Or head out to a local market and support one of West Virginia's great syrup producers. This ain't no Aunt Jemima! 🍷

*Todd Romero runs Canaan Valley Maple from his home in, you guessed it, Canaan Valley.*

Maple sap is collected, tested for sugar content, pumped through a reverse-osmosis system, and boiled to become delicious amber nectar.

