Backyard Maple Sugaring

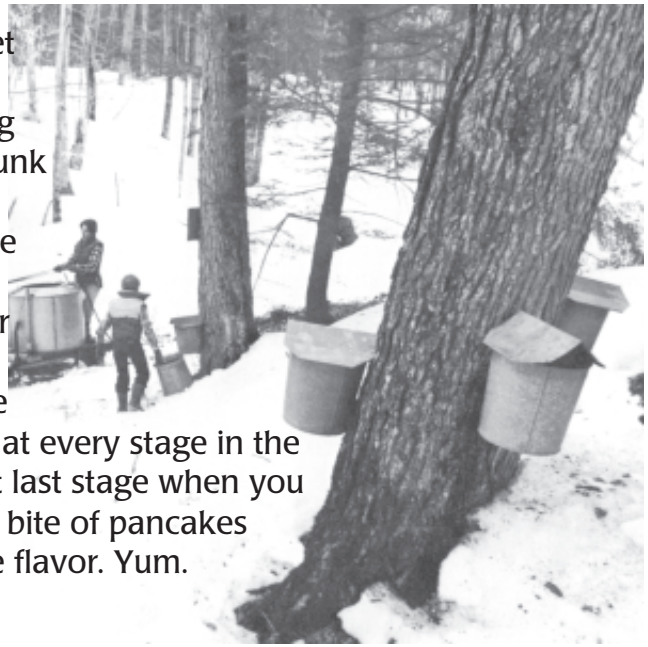
or -

The Family Boils Down

Syrup From The Backyard

Tapping maple trees and producing the syrup and/or sugar is a cultural tradition reaching so far back no one knows for sure when it started. *Now that's a tradition*. We know it all started with the Native Americans who lived in areas of abundant maple trees, the great deciduous forests that reached westward from the northeastern coast of North America to the Great Plains. Legends seems to indicate the sap was noticed dripping from cuts in the trees (results of hatchets or broken limbs) and subsequently used as water for boiling. This fortuitous happening added flavoring and sweetness to foods deplete of any other supplemental sugars. Not even honey was available since the honey bee was imported with other more invasive species - European settlers. Tapping of trees other than maples can be traced back to birch trees in more northern regions.

This joyous, spring ritual helped break the grip of winter for the Native Americans and it can for your family as well. It's an easy process, though a labor-intensive one. That's where the family involvement comes in. Everyone's efforts and energy are important. And everyone shares in the sweet rewards. The best part, even better than seeing the first drop of sap plunk into the sap bucket; better than smelling the sweet steam billowing up from the pan; better than the fresh, crisp walk to the trees, is the uncontrollable smiling at every stage in the process. Especially that last stage when you anticipate that melting bite of pancakes soaked in sweet maple flavor. Yum.



Our Family's Maple Sugaring Story

The filtering helps remove the precipitate (a collection of fine, light colored grains) that forms in the syrup. This will settle out also when the syrup cools. You can then pour off the clear syrup into another container.
Unfinished "almost syrup" is a wonderful place for bacteria to grow so be sure to take it to the syrup stage. Then it can be poured into any container and stored in the refrigerator to await that hot stack of pancakes with melted butter. Maybe a sausage...a glass of juice...cup of coffee...you get the picture.

Karen Kerans, Staff Naturalist,
Wehr Nature Center

Reference: The *Maple Sugaring Story* by Betty Ann Lockhart

Here Is How To Do It

WHEN
In late February or early March when the days begin to lengthen, the sap will begin to rise from the roots of all trees, including the maples. The sap feeds the swelling buds before the leaves pop out and start the food-producing process of photosynthesis. The best time for tapping is when nights are below freezing and the days are about 40 degrees F. Sap will be collected until the buds open which amounts to about 4 weeks. When the buds open, the flow of sap slows and the taste becomes bitter or "buddy".

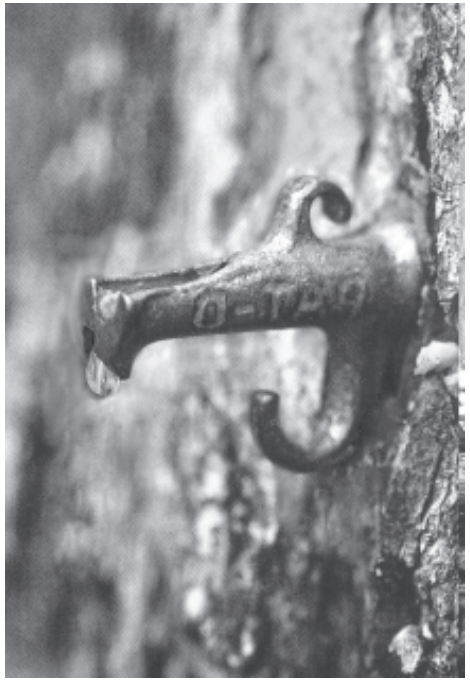
WHICH TREE
Any maple tree can be tapped but the one with the greatest sugar concentration is the sugar maple. Other maple trees include the silver maple, red maple (although it tends to grow in wetter areas and is therefore less accessible), black maple, and box elder. There isn't much difference in the taste of the finished product. The silver maple requires 60 gallons of sap to produce one gallon of syrup. The sugar maple requires only 40 gallons. Only.

HOW TO I.D.
Maple trees have opposite branching. This is easy to see even in winter when there are no telltale maple leaves to reveal the identity of the tree. Opposite branching means the buds, twigs, and leaves all grow directly across from each other. (Like your arms on your body.) Ash and horse chestnut are the only other trees in our area with opposite branching and ash is the one you may confuse with maple. However, maple twigs are very slender (less than 1/4" in diameter), sugar maple twigs are also brown, and ash twigs look clubby (maybe 3/4" in diameter). Also the bark of ash is very tight on the tree and forms diamond-shaped ridges. The maple bark, although less easily described, has pinkish, gray flakes. If all this is confusing, identify the tree in summer and mark it for tapping later. Of course, if the tree is in your backyard, you probably already know if it's a maple.

SIZE OF TREE
Trees should be at least 12" in diameter (15" is better) to be tapped. This assures that the sapwood, the layer of wood just under the bark through which the sap flows, will be thick enough that you can tap without penetrating the heartwood. Heartwood is the section of the tree's trunk that is no longer living tissue. If your tap enters the heartwood, the tree cannot heal the injury. This leaves it vulnerable for bacterial or fungal invasion .

HOW MANY TAPS
A 12 - 15" diameter tree can handle one tap. A 20" diameter tree can handle two taps. Don't put more than two taps in a tree. A tap will produce about a quart of syrup (10 gallons of sap) in a season.

HOW TO TAP
Use a drill with a 3/8" bit. This will produce a hole the right size for a metal spile you can purchase at a nature center (like Wehr) or a maple sugar supply place. Drill in 1 1/2" (less for the smaller trees) with a slightly upward slant. In larger, mature trees, you may be able to drill to 2" but never more than that. Insert the metal spile and gently tap it in place with a hammer. It should be just snug enough so that it can't be pulled out by hand. Hang a bucket, bag, or clean milk jug onto the spile and check and/or collect your sap every day. When the weather is just right, you may have to collect twice a day. At the end of the season, after the run is over, remove the spile. The hole will heal up to form a scar on the bark after 2 or 3 years.



STORAGE
Sap will spoil if not refrigerated. No need to freeze it. Boiling it down in smaller batches (1 - 4 gallons) right away is best. The sap from the early run is lighter in color and taste. If it turns cloudy, it has spoiled. Throw it out.

PESTICIDES
Maple trees take up the water that falls on the ground around them. They also take up the chemicals that have been dissolved in the water. If you apply pesticides to the area in which the maple tree grows, don't tap that tree. If there's any doubt, you can have the soil tested for contamination before tapping.

COOKING
If you can boil water, you can make maple syrup. That's what you do - boil. (However, burning the first batch is not an atypical initiation. I know from personal experience.) A large, flat pan is good because it gives more surface area for the water to evaporate. And there is a lot of water to evaporate. The steam may cause your wallpaper to loosen if you boil in the kitchen. To avoid having wallpaper fall around you, boil outside. Any kind of fuel is fine but the hotter the fire, the better. Bring the sap to a rolling boil and sit back and relax. This is a good time for storytelling. Tell the kids what life was like when you were a kid and about the activities you enjoyed most with your family. Then let them tell you. When the sap has boiled down to about a quarter of its original volume, stick in a candy thermometer. Water boils at 211 degrees F. When the thermometer reads 217 or 218 degrees, the syrup is finished.
Before it gets to that point, you will probably want to transfer the smaller amount to a smaller pan so it doesn't burn. This is a good time to filter the "almost syrup" through an old, cotton dish cloth. Coffee filters can also be used. I like the hominess and the density per inch of the dish cloth. The holes in cheesecloth are too wide.