
EDIBLE TRADITIONS

BY MARK HARRAN

RETURN OF A SUGARBUSH NATIVE

Passionate promoters of a sweet art.



Maple Magic Made Real

When I first moved to Connecticut, almost 40 years ago, I had no idea that maple syrup was produced here. Now, as a producer of Connecticut maple syrup, I am continually impressed by how many long time, some life long, residents of the state are surprised to learn that Connecticut produces great maple syrup. They are equally surprised to learn that each spring many Connecticut sugarhouses are open to the public to not only purchase, but also learn about how maple syrup is made.

I first became seriously interested in maple sugaring when I was four years old. That's when I have my first recollection of visiting my grandfather's sugar bush in Hopkinton, NY, a small upstate rural community near the St. Lawrence River. That was 1944 and it put a magic spell on me that never left.

As part of the family farm, my grandfather had one of the largest maple syrup operations in New York State. He tapped over 5,000 trees and had a crew of six men and three teams of horses committed 24/7 for the eight-week season, which ran from late February

into April. I can still see my grandfather tending the evaporator, feeding logs into its firebox every couple of minutes, testing to see if the syrup was ready and drawing off freshly made syrup into 55-gallon drums. I vividly remember the steam and the sweet smell throughout the sugarhouse. There was always a high level of activity. Horse teams, fresh out of the woods, clamoring up the big ramp beside the sugarhouse, pulling sleds with full tanks of collected sap to be emptied into a huge tank in the attic that fed fresh sap into the evaporator. Men splitting wood to burn in the evaporator. It was exciting and made a lasting impression.

This lasting impression did take a little while to have its full impact, though. I grew up, left the farm, moved to the big city and spent most of my adult life in the corporate world. The memories

Above, from left: Sap drips from a tap made by Leader Evaporator Co., founded in 1888, and now the largest manufacturer of maple sugaring equipment in the United States; local maple syrup; future maple syrup maker Mark Harran.

Photographs: Jill Davenport and courtesy of Mark Harran

INTERESTING MAPLE SYRUP FACTS

40 gallons of sap will make one gallon of syrup.
Maple sap looks just like clear water, but has a slight sweet taste.
Maple sap flows best on still, sunny days after freezing nights.
Sap can run out of a tree tap at the rate of 150 drops per minute.
Sap flowing fast out of a tree is called a “run”.
It takes a maple tree 40 years to grow to larger than a 12-inch diameter to be ready to be tapped.
Maple trees live to be 400 years old and can be tapped throughout their life span.
A gallon of syrup weighs about 11 pounds versus 8 pounds for a gallon of water.
Pure maple syrup has no fat or proteins and is a good source of calcium, iron and thiamin.
As soon as the tree’s leaf buds start to open the sap is not suitable for making maple syrup.

of maple sugaring and other experiences on the family farm were still in my head, but suppressed in a remote area of my consciousness, until about seven years ago.

In 1999 and at age 60, while in retirement and with the ability to live in Florida, play golf every day and have an easy life, something led me to go back to farming in Connecticut. It was helped by my desire to actually farm with the John Deere tractors I had acquired. That year, Kay, my wife, and I purchased a small farm in Litchfield and started making maple syrup, just like my grandfather did, but on a much smaller scale and with a lot more technology to save labor and ensure high quality. Currently, we, along with some help from neighbors, make about 150 gallons of maple syrup a year. As a result, I have gone full circle. Both Kay and I are now passionate about making the highest possible quality maple syrup and promoting the merits of Connecticut-made maple syrup. If that’s not enough, we also make about 40 tons of hay from our 20-acre meadow. John Deere tractors play an important role in both activities.

A Little Historical Perspective on Maple Sugaring

Maple syrup is among the oldest totally natural food products produced in North America. Native Americans first discovered this flavorful natural sweetener. Although modern-day commercial operations differ greatly from those of our ancestors, the basic process of converting maple sap to syrup still requires boiling to evaporate away the water from the raw sap to yield the finished maple syrup. And for the past 350 years the delicious end product as well as the process of producing it has been enjoyed by many generations, instilling fond memories among kids and adults alike while fostering numerous recipe books, paintings, photographs and

the like. It’s as American as apple pie and, incidentally, maple syrup poured over apple pie and ice cream is about as good as it gets.

Although upwards of 90 species of maple trees are native to North America, the sugar maple (*acer saccharum*), which only grows in the Northeast and North-central regions of North America, is the traditional one tapped for maple syrup production. The sap of the sugar maple contains a higher level of sugar than the other maples. Sugar maple *sap* has 1 to 4 percent sugar content, while maple *syrup* is 66 to 67 percent sugar content. Hence, the ratio of fresh sap to finished maple syrup is about 40 to 1.

Any sugar maple tree that lives in the right place can be successfully tapped. The right place means a climate with weather conditions that, during spring warm-up, cause atmospheric pressure inside the tree to exceed that of the pressure outside. Cold, below-freezing nights followed by a warm, 45-degree days are ideal. When this occurs, sap will flow out through any opening in the tree, including a broken stem, a wound nibbled by a squirrel or a hole drilled by a human.

The Native Americans, when boiling the sap, bypassed the syrup stage and went on to make sugar. The molten crystals were poured into molds, which made storage and transport easy. When the Indians wanted syrup, they added water to the sugar. The tasty, brown sugar and its syrup were used as both a spice and a sweetener. Today

RECIPE

ROASTED SHALLOT–MAPLE VINAIGRETTE SALAD DRESSING

from Kay Carroll, Brookside Farm II, Litchfield

2 T. extra-virgin olive oil	1½ T. maple syrup
1 small shallot	2 T. sherry or balsamic vinegar
1 clove garlic	1 t. kosher salt
½ t. Dijon mustard	Freshly ground black pepper

1. Preheat the oven to 400°.
 2. In a small baking dish, combine the olive oil, shallot and garlic.
 3. Cover with aluminum foil and roast for 15 minutes or until easily pierced with a fork.
 4. Strain the olive oil and set aside, reserving the shallot and garlic. Let cool.
 5. In a blender or food processor, combine the reserved shallot, garlic, mustard, maple syrup, vinegar and salt. Blend until smooth.
 6. With the machine running, gradually add the reserved olive oil in thin stream.
 7. Season with pepper.
- Makes about ½ cup dressing.

TIPS FOR COOKING WITH
CONNECTICUT MAPLE SYRUP

(Adapted from <http://maple.dnr.cornell.edu/recipes/tips.htm>)

For baking, Grade A Dark Amber or Grade B syrup will give you the best flavor and color.

You may convert most recipes using sugar with $\frac{3}{4}$ cup syrup for 1 cup of sugar and reducing another liquid in the recipe by $\frac{1}{4}$ cup.

If a recipe calls for 2 cups of sugar and you want to use maple syrup—use 1 cup of sugar, $1\frac{1}{4}$ cups maple syrup and $\frac{1}{2}$ cup less liquid than called for in the recipe

maple syrup, not sugar, is the favored maple product, but because of the early Indian practice, the process is still referred to as maple sugaring.

Connecticut is Small, but Still Important within the Maple Syrup Industry

About seven million gallons of maple syrup are produced annually in North America. Canada leads with the most maple syrup produced in Quebec; Ontario is second. In the United States, Vermont leads the way, followed by New York, Maine, Wisconsin, Pennsylvania, New Hampshire and Michigan, in that order. Connecticut produces less, due to its smaller geography and higher urbanization.

Despite the fact that great tasting maple syrup is produced and available locally, many residents are still conditioned to link maple syrup with Vermont. It does make the most in the United States and the State of Vermont markets itself as the maple sugaring capital of the US. They have even trademarked “State of Vermont maple syrup.” Think maple syrup; think Vermont—if not, maybe New Hampshire or New York State—but Connecticut?

Now I want to make it clear that I have the utmost respect for



Vermont maple syrup. Producers there make a lot of high-quality maple syrup. But, although we make much less, we do it just as well here in Connecticut. In addition to having a vibrant maple syrup industry in our state, my research shows that it was made in Connecticut before Vermont. Early settlers in the 1630s from the Massachusetts Bay and Plymouth Colonies recorded that fact, which predates Vermont’s settlement. Interestingly, the official address of the North American Maple Syrup Council (NAMSC), which includes Canada, is Simsbury, Connecticut. Moreover, a number of Connecticut sugar makers are in the North American Maple Sugaring Hall of Fame, located in Croghan, New York, and, at last year’s annual meeting of the NAMSC in Trois-Rivières, Quebec, top awards for quality were won by a Connecticut sugar maker. Finally, the treasurer and just retired chairman of the NAMSC Research Fund both live in Connecticut. Take that Vermont!

Making Maple Syrup

In late winter (February in Connecticut), as spring nears and the days grow warmer and longer, the sugar maple tree is tapped. This involves drilling a $\frac{5}{16}$ -inch hole three inches into the tree and driving a spout into the hole. Unless there is gross negligence, no harm is done to the tree. It starts a permanent healing process within eight weeks of being tapped, which is about the length of the sugaring season, and can be tapped year after year with no damage.

IT’S NOT JUST BOILING AWAY WATER—A TALE OF THREE SUGARS

Most explanations of how maple syrup is made focus on the fact that syrup, about two percent sugar, is boiled until enough water has evaporated away to yield maple syrup, 67 percent sugar. But there is a twist to this story. Fresh out of the tree, the sugar in the sap is sucrose, just like sugar cane. But as the sap ages, some of the sucrose changes into invert sugars—hexose and dextrose. Mark Harran believes that it is these two types of sugars “cooking” together during the final stages of evaporation that give maple syrup its flavor and color. If sap were simply freeze-dried it would yield a sweet white substance much like table sugar. It could be used as a sweetener, but would not have desirable taste qualities of its own. So, he believes you don’t just boil sap to make maple syrup—you cook it in its final stage!



FOUR MAPLE SYRUP GRADES PROVIDE DIFFERENT ATTRIBUTES

When using maple syrup as a topping or an ingredient, one of the most important things to consider is which grade would be best for that particular application. Grades are basically defined along a relative light to dark color spectrum. The sugar density or content (67 percent) is the same in all grades. The two factors that primarily influence the grade of syrup produced are:

1. *The amount of sugar in the sap before it enters the evaporator.* The higher the sugar content of the sap, the less time it has to boil to become syrup. Less boiling equals lighter color. More means darker.

2. *The amount of fermentation that has occurred in the sap before it enters the evaporator.* Fermentation causes the sugars to form differently during the boiling process, so it is not just darker but also has a different flavor profile. Fermentation happens when the sap is not evaporated into maple syrup right away, and when warmer weather near the end of the season accelerates bacterial growth in the sap before boiling. Generally, late season maple syrup is dark, early season is light.

Tasters easily pick up the differences between

the four grades. Generalized official definitions cannot do them justice, so please enjoy your own taste test when you visit a sugar-house or farmers market.

Grade A Light Amber is also referred to as *Fancy* in Vermont. It is the lightest in color and has a delicate bouquet. The flavor is also mild and is best on or with foods that permit its subtle flavor to be appreciated. It is preferred for fine maple candy.

Grade A Medium Amber is the next darkest, with a medium-amber color and a distinct maple bouquet. It has the characteristic maple flavor and is the most popular for all-around use.

Grade A Dark Amber is a dark amber color and has a more pronounced maple bouquet. It has a heartier maple flavor and is also popular for table and all-around use.

Grade B is the darkest table grade of maple syrup and has a robust maple bouquet. It also has the most intense maple flavor. Many chefs prefer this grade for cooking when they want the maple flavor to be pronounced in the end-result.

The sap flows during warm days following cold, below-freezing nights, and is gathered by either attaching tubing to the spout, which runs to a central collection tank, or hanging a bucket on the spout. Traditionally, buckets were used which required someone to visit each bucket to collect the sap for boiling. Today, technological advances along with the need for productivity have resulted in big producers using tubing networks where sap from thousands of taps flows to central collection tanks, sometimes right into the sugar-house. Either way, sap is collected daily and usually evaporated immediately—the sooner the better, since sap is a mixture of sugar and water, and thus a perfect medium for bacterial growth.

The sap (1 to 4 percent sugar) is boiled down to syrup (67 percent sugar solids) in a variety of ways. The simplest would be setting a pot over an open fire, like the early colonists in Connecticut did back in the 1630s. The most sophisticated is a commercial continuous feed evaporator fired by wood or heating oil and capable of processing 100 or more gallons of sap per hour.

Sap boils and evaporates at 212 degrees F, the same as water, but the concentrated form doesn't become syrup until it reaches 7.5 de-

grees above the boiling point of water. Hydrometer and temperature checks (sometimes computer driven) are used to determine when the syrup is ready. Next, the fresh syrup is filtered at 190 degrees or higher to remove any gritty material, called "sugar sand" or "niter" and to achieve a crystalline clarity. Then the finished syrup is canned or "hot packed" at 190 degrees into sterile, sealed and tamper-evident containers that have the equivalent microbiological protection and shelf life of canned juice or soups. Once opened, the syrup should be stored under refrigeration. If any mold appears after extended open storage, it can be skimmed off; the syrup reheated to 190 degrees and repacked into a clean container.

Visiting a Connecticut sugarhouse during the season, February and March, can be a great family experience. If you are not able to do so this winter, you can enjoy meeting maple sugar producers at local farmers' markets this summer and early fall. Experimenting with maple syrup in your recipes is fun and rewarding throughout the year. It will add variety to culinary treats you offer your family while helping to preserve a sweet art in Connecticut. □



GUIDE TO CONNECTICUT SUGARHOUSES OPEN TO THE PUBLIC

Please call ahead to confirm schedules for the 2007 season.

Each year the Maple Syrup Producers Association of Connecticut publishes a guide listing 25 or more sugarhouses open to the public. The information below is from the 2006 guide. Many sugarhouses also host special events and group tours, and offer a variety of products. Copies of the guide are available at many local libraries.

You can also visit ctmaple.org to download the 2007 guide (when available), learn more about maple sugaring in Connecticut and follow links to related sites.

FAIRFIELD COUNTY

STAMFORD MUSEUM AND NATURE CENTER
203-322-1646 * stamfordmuseum.org
39 Scofieldtown Road, Stamford

WARRUP'S FARM
Bill Hill * 203-938-9403
John Read Road, West Redding

HARTFORD COUNTY

ARLOW'S SUGAR SHACK
Arlow and Doris Case * 860-653-3270
101 Bushy Hill Road, Granby

LAMOTHE'S SUGAR HOUSE
The Lamothe Family
860-675-5043 * lamothesugarhouse.com
899 Stone Road, Burlington

LEONARD'S SUGARHOUSE
Raymond Leonard, Jr. * 860-693-8514
555 Cherry Brook Road, North Canton

NORTHWEST PARK SUGARHOUSE
860-285-1886 * norhtwestpark.org
145 Lang Road, Windsor

LITCHFIELD COUNTY

BROOKSIDE FARM II
Kay Carroll and Mark Harran
860-567-3805 or 860-567-3890
79 East Chestnut Hill Road, Litchfield

BROTHER'S AND SONS SUGARHOUSE
The Schoonmaker Family * 860-489-2719

998 Saw Mill Hill Road, Torrington

COOLWATER SUGARHOUSE
860-542-5422
Windrow Road, Norfolk

DUTTON'S SUGARHOUSE
The Dutton Family * 860-868-0345
28 Sunny Ridge Road, Washington

GREAT BROOK SUGARHOUSE
Mark Mankin * 860-354-0047
140 Park Lane (Route 202), New Milford

LAURELBROOK FARM
Robert and Peter Jacquier * 860-824-7529
390 Norfolk Road & Route 44, East Canaan

KASULAITIS FARM AND SUGARHOUSE
Ray Kasulaitis and Diane Janes
860-379-8787
69 Goose Green Road, Barkhamstead

WOODBURY SUGARSHED
Lou and Carol Berecz & Sons
203-263-4550
41 Washington Road (Route 47), Woodbury

WEST HILL SUGARHOUSE
Tim Mandel, Dick Selinga, Jack Trumbull
860-379-9672 or 860-379-7312
525 West Hill Road, New Hartford

NEW HAVEN COUNTY

BROOKSVALE PARK SUGAR SHACK
203-287-2669 * brooksvale.org
542 Brooksvale Avenue, Hamden

KETTLETOWN SUGARHOUSE
Aaron Lewis * 203-264-9241
104 Nelson Road, Southbury

MAPLE GROVE FARM
Buster Scranton * 203-457-1304 or
203-457-0168
3424 Durham Road (Route 77), Guilford

POND HILL FARM
Bill Wallace * 203-981-0900
900 Clintonville Road, Wallingford

WAYNE'S SUGARHOUSE
Wayne and Dana Juniver * 203-488-3549
89 Cedar Lake Road, North Branford

NEW LONDON COUNTY

BUREAU'S SUGARHOUSE
Donald and Patricia Bureau and Boys
860-434-5787 * maplekettlekorn.com
60 Rowland Road, Old Lyme

OWENECO FARMS SUGAR SHACK
John Drum and Frank Grabber
860-642-7364
2067 Exeter Road (Route 207), Lebanon

TOLLAND COUNTY

ANNUAL HEBRON MAPLE FESTIVAL
March 10-11, 2007
860-228-1110 * hebronmaplefest.com
Self tours to these Hebron Sugarhouses: Hope Valley, Wenzel, Woody Acres, and Winding Brook

BRADWAY'S SUGARHOUSE
Donald and Karen Bradley
860-684-7112 * 860-684-6876
Bradway Road, Stafford Springs

HURST FARM SUGAR HOUSE
The Hurst Family * 860-646-6536
746 East Street, Andover

WINDHAM COUNTY

BATS OF BEDLAM MAPLE FARM
Bob and Pat Dubos * 860-455-9200
101 Bedlam Road, Chaplin

MIK-RAN'S SUGARHOUSE AND SPECIALTY SHOP
Randall E. King, Sr. and Family
860-774-7926
86 Stetson Road, Brooklyn

NORMAN'S SUGARHOUSE
Richard and Avis Norman * 860-974-1235
387 County Road, Woodstock

RIVER'S EDGE SUGAR HOUSE
The Proulx Family * 860-429-1510
riversedgesugarhouse.com
326 Mansfield Road (Route 89), Ashford

SWEET SUE'S SUGAR SHACK
Doug Langer and Family * 860-923-9000
932 Thompson Road, Thompson