

Brief Note

**Sugar Maples and Maple Sugar
at Historic Smithfield**

*Donald E. Bixby**

“What is that big tree just over the rail fence?” is a question often asked by visitors to Historic Smithfield, especially in the autumn when the tree is ablaze with fall color. The answer is that it is the last of the ancient Smithfield sugar maples, or *Acer saccharum*. The tree has been dated to the late 1700s, and is likely a contemporary of the first years of the Preston family at Smithfield.¹

As recently as 10 years ago, there was evidence of six of these magnificent trees planted in a row along the rail fence. This row consisted of four trees and two stumps. Three of the trees were in serious decline. Two were hollow, and the staff often watched baby raccoons peering from holes in the trees. Eventually, the three had to be removed for reasons of safety.²

In the spring of 2014, the surviving tree provided about 40 gallons of sap, enough for staff member April Danner to produce a gallon of maple syrup, or about five pounds of sugar, at a youth demonstration.³

Native Americans had long harvested the sweetness of the maple; perhaps first noticing that squirrels and birds wounded the bark of maples and then ate the sugar crystals. A broken branch would often produce a “sapsicle” at the wound that could be broken off and enjoyed. Trees were gashed with an ax, and the sap was collected in birch bark baskets. Meat was often boiled in sap, and sometimes the syrup was poured onto snow to crystallize, or into shells and decorative wooden molds. Maple sugar became an important part of the late winter diet. Other trees, such as birch and hickory, were tapped, but the quantity and sugar content were much lower.⁴

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European settlers substituted an auger and wooden spile, or spout, to collect the sap in wooden or metal buckets. The small hole produced by the auger allowed the trees to be harvested annually without damage to the tree. Today, most sugar bushes use plastic tubing to connect multiple tapped trees to a central collection station.^{5,6}

The area around Historic Smithfield is not a likely region for sugar maples⁷, so why were these trees planted there? An article in the *Colonial Williamsburg Journal* by Mary Miley Theobald may suggest an answer. Benjamin Rush and the abolitionist Quakers of Philadelphia promoted maple sugar over cane sugar with the goal to “lessen or destroy the consumption of West Indian sugar, and thus indirectly to destroy negro slavery.” Thomas Jefferson joined Rush’s group. The maple sugar scheme combined Jefferson’s love of botany and his anti-slavery sentiments, though his slaves provided him with the leisure to pursue this idea and his many other interests.⁸

There was also international interest in maple sugar as a low-cost substitute for cane sugar. Louis Philippe, Duke of Orleans and later the last French king, was traveling through Virginia in 1797. He was intrigued by the possibility of large-scale production, particularly in French-held North American territory. More than a curiosity, European tensions were disrupting trade, including sugar transported from the Caribbean.⁹

Maple sugar is easier to produce than cane sugar and requires less investment in machinery, animals, labor, and slaves. A farm family could



Figure 1. The remaining Preston Sugar Maple being tapped for sap in the spring. Courtesy of Historic Smithfield Plantation



Figure 2. The Sugar Maple towers over the manor house. Courtesy of Historic Smithfield Plantation

produce all the sugar it needed in a season, about 200 pounds with a salable surplus. Rush incorporated Jefferson's ideas and suggestions into a pamphlet extolling the health benefits of pure maple sugar. By harvest time, there were no insects about to contaminate the sugar, and "it was produced by free Americans with cleaner hands than slaves: men who work for exclusive benefit of others are not under the same obligations to keep their persons clean while they are employed at their work."¹⁰

Of the 60 sugar maple saplings Jefferson planted at Monticello, all died within a few years. Two additional plantings met a similar fate. Sugar maples, however, do grow well in the western part of the state at higher elevations.¹¹ Warm days and frosty nights are necessary for a good flow of sap. Jefferson's hopes for domestic sugar independence did not materialize, but they did lead to an increase in maple sugar production in the North.^{12, 13}

Before the Civil War, maple sugar was the dominant sugar product. At half the price of imported cane sugar, it was the common American sweetener. As the price of cane sugar fell and beet sugar came on the scene, maple sugar makers switched to syrup. Today, nearly all maple sap is made into syrup.^{14, 15}

The remaining sugar maple tree at Historic Smithfield Plantation stands as a majestic sentinel and reminds us of a time when sustainability was not just a catch phrase but a necessity for survival, especially on the frontier.

Endnotes

1. Jay Stipes, Professor of Plant Pathology, Virginia Polytechnic Institute and State University, personal conversation, June 14, 2012
2. Personal observation of the author
3. April Danner, Deputy Administrative Director, Historic Smithfield. Personal conversation June 20, 2014
4. Mary Miley Theobald, *Thomas Jefferson and the Maple Sugar Scheme*, Colonial Williamsburg Journal, autumn 2012
5. Ibid.
6. Timothy Perkins, Director, Proctor Maple Research Center - Underhill Center - Vermont
7. George A. Petrides (Author), Roger Tory Peterson (Editor), Janet Wehr (Illustrator) *Field Guide to Eastern Trees: Eastern United States and Canada, Including the Midwest* (Peterson Field Guides)
8. Theobald, *Thomas Jefferson and the Maple Sugar Scheme*
9. Sharon Watkins, *A Future French King Visits the Virginia Backcountry in 1797, The Smithfield Review* 16 (2012)
10. Theobald, *Thomas Jefferson and the Maple Sugar Scheme*
11. Ibid.
12. Ibid.
13. Janet Eagleson, Rosemary Hasner, *The Maple Syrup Book*, Boston Mills Press
14. Theobald, *Thomas Jefferson and the Maple Sugar Scheme*
15. Eagleson, Hasner, *The Maple Syrup Book*