

# MAPLE SUGAR: A BIBLIOGRAPHY OF EARLY RECORDS

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This bibliography of references to maple sap and its products is presented as part of a program of research on the history of foods. In this instance interest centers around two typically American foods obtainable from the "wounded maple" and in the past referred to as Canada, American or Indian sugar and American "melasses" or "syrup" of maple, respectively. Its first item, an excerpt from the journal of a Jesuit missionary, marks it as beginning with a period (1634) which is coincident with the coming of the first white man to Wisconsin.

It is not a bibliography in the sense that it is an exhaustive compilation of all the titles or relevant comments and observations which have appeared on this subject during the two-and-a-quarter century span which opened with a significant date in the history of the Northwest Territory and closed, approximately, during Civil War days. In this respect it falls short of that measure of completeness. Except for a few items, it is the result of a search of a selected group of books of travel and natural history, diaries, journals, narratives and miscellaneous communications in periodicals, many of them long out of print, in the collection of the State Historical Society of Wisconsin. It is deemed to be sufficiently comprehensive to supply the student of this field of history with source material which is not only instructive and interesting, but, at times, even amusing.

1. Le Juene, Paul 1634  
Jesuit Relations and Allied Documents. Travels and Explorations of the Jesuit Missionaries in New France. 1610-1791. R. G. Thwaites, Editor. The Burrows Brothers Company, Cleveland, 1901, Vol. VI, p. 273.

*(The sugar maple a source of food for the Indian)*

"When they are pressed by famine, they eat the shavings or bark of a certain tree, which they call *Michtan*, which they split in the Spring to get from it a juice, sweet

as honey or as sugar; I have been told of this by several, but they do not enjoy much of it, so scanty is the flow."

2. Denys, Nicolas 1672

*Histoire naturelle des Peuples, des Animaux, des Arbres & Plantes de l'Amerique Septentrionale, & de ses divers Climats.* Paris, 1672, Vol. II. Chap. XX. W. F. Ganong, *The Description and Natural History of the Coasts of North America (Acadia).* Toronto, 1908, p. 380-1.

*(Description of the tapping of maple trees whose sap is a favorite drink of both Indians and French)*

"That tree has sap different from that of all others. There is made from it a beverage very pleasing to drink, of the colour of Spanish wine but not so good. It has a sweetness which renders it of very good taste; it does not inconvenience the stomach. It passes as promptly as the waters of Pouque. I believe that it would be good for those who have the stone. To obtain it in the spring and autumn, when the tree is in sap, a gash is made about half a foot deep, a little hollowed in the middle to receive the water. This gash has a height of about a foot, and almost the same breadth. Below the gash, five or six inches, there is made a hole with a drill or gimlet which penetrates to the middle of the gash where the water collects. There is inserted a quill, or two end to end if one is not long enough, of which the lower extremity leads to some vessel to receive the water. In two or three hours it will yield three or four pots of the liquid. This is the drink of the Indians, and even of the French, who are fond of it."

3. Nouvel, Henri 1673

*Jesuit Relations.* Vol. LVI, p. 101.

*(Sap is called "maple water.")*

"About the same time, I made various excursions on the ice in quest of stray sheep,—finding five children, to Baptize, and a sick young man, for whose salvation Providence was more watchful than I. For, having inadvertently baptized him, not with natural water, but with a certain liquor that runs from the trees toward the end of Winter, and which is known as "Maplewater", which I took for natural water, I discovered my mistake when, wishing to give this

patient a dose of Theriac, I asked for some maple-water,—which, being naturally sweet, is more suitable for such a purpose. I was given some of the same liquor that I had used in baptizing him, and was thus obliged to repair that error,—happily a little before his death.”

4. Dalmas, Antoine 1674

Ibid., Vol. LVIII, p. 121.

(*Red maples*)

This is a report to the superior Dablon, of an expedition of observation around Isle Jesus, near Montreal made in September, 1674.

“We visited the country; the land is very stony, but has many walnut-trees, beeches, aspens, and red maples, which are numerous along these Shores.”

5. Nouvel, Henri 1675

Ibid., Vol. LX, p. 217.

(*Comment on lofty oaks and maples*)

Pertinent to the region near Lake Erie.

6. Thornton, ----- 1684

*Phil. Mag.*, 1, 322-3 (1798).

Of an Attempt to make the Maple Sugar above an hundred Years ago. Dr. Robinson to Mr. Ray.

“It appears, by the following correspondence between Dr. Robinson and Mr. Ray, that the property of the American maple of yielding a saccharin juice was known above a century ago, and that attempts were even made to produce sugar from it:

London, March 10, 1684.

“Dear Sir,

“I have enclosed you some sugar of the first boiling got from the juice of the wounded maple: Mr. Ashton, Secretary to The Royal Society, presented it to me. ’Twas sent from Canada, where the natives prepare it from the said juice; eight pints yielding commonly a pound of sugar. The Indians have practiced it time out of mind; the French begin to refine it; and to turn it to much advantage. If you have any of these trees by you, could you not make the trial proceeding as with the sugar cane?

Answer to Dr. Robinson:

Black Notley, April 1, 1684.

"Yours of the 10th instant I received, and therein an enclosed specimen of the Canada sugar, a thing to me strange and before unheard of. It were well worth the experiment you mention. I therefore engaged a friend and neighbour of mine, an ingenious apothecary, whom I employed yesterday to boil the juice of the greater maple, a tree which grows freely half a mile off from my residence. Having made an extract, he found a whitish substance, like to brown sugar, and tasting very sweet, immersed in a substance of the color and consistency of molasses. Upon curing, I have no doubt it will make perfect sugar. When it is cured, I will give you a farther account of it."

7. -----

1685

*Phil. Trans.*, 15, 988.

(*An account of a sort of Sugar made of the Juice of the Maple, In Canada*)

"The Savages of *Canada*, in the time that the Sap rises, in the *Maple*, make an Incision in the *Tree*, by which it runs out; and after they have evaporated 8 pounds of the liquor, there remains one pound as sweet, and as much *Sugar*, as that which is got out of the Canes; Part of the same *Sugar*, is sent to be refined at Roven.

"The Savages have practiced this Art, longer than any now living among them can remember.

"There is made with this *Sugar* a very good Syrup of Maiden Hair, and other Capillary Plants, which is used in *France*."

8. Joutel, Henri

1688

Journal historique du dernier Voyage que feu M. de la Sale fit dans la Golfe de Mexique pour trouver l'embouchure, & le cours de la Riviere de Missicipi. Paris, 1713, p. 352; in translation, A Journal of the Last Voyage perform'd by Monsr. de la Sale, to the Gulph of Mexico to find out the Mouth of the Missisipi River, London, 1714, p. 179. See also Pierre Margry, Découvertes et Établissements des Français dans l'ouest et dans le sud du l'Amérique Septentrionale (1614-1754). Paris, 1878, Pt. III, p. 510.

(Sweet water from a tree)

"The bad Weather oblig'd us to stay in that Place, till April. That Time of Rest was advantageous for the Healing my Foot; and there being but very little Game in that Place, we had Nothing but our Meal or *Indian* Wheat to feed on; yet we discover'd a Kind of *Manna*, which was a great help to us. It was a Sort of Trees, resembling our Maple, in which we made Incisions, whence flow'd a sweet Liquor, and in it we boil'd our *Indian* wheat which made it delicious, sweet and of a very agreeable *Relish*.

"There being no Sugar-Canes in that Country, those Trees supply'd that Liquor, which being boil'd up and evaporated, turn'd into a Kind of Sugar somewhat brownish, but very good."

9. LeClerq, Chrestien

1691

Nouvelle relation de la Gaspésie, qui contient les Moeurs & la Religion des Sauvages Gaspiens Porte-Croix, adorateurs du Soleil, & d'autres Peuples de l'Amérique Septentrionale, dite la Canada. Paris. 1691, p. 124; W. F. Gagnon, New Relation of Gaspesia with the Customs and religion of the Gaspesian Indians. Toronto, 1910, p. 122-3.

(Water of the maple)

"As to the water of the maple, which is the sap of that same tree, it is equally delicious to French and Indians, who take their fill of it in spring. It is true also that it is very pleasing and abundant in Gaspesia, for through a very little opening which is made with an axe in a maple, ten to a dozen half-gallons may run out. A thing which has seemed to me very remarkable in the maple water is this, that if, by virtue of boiling, it is reduced to a third, it becomes a real syrup, which hardens to something like sugar, and takes on a reddish colour. It is formed into little loaves which are sent to France as a curiosity, and which in actual use serve very often as a substitute for French sugar. I have several times mixed it with brandy, cloves & cinnamon, and this makes a kind of very agreeable *rossolis*. The observation is worthy of note that there must be snow at foot of the tree in order that it shall let its sweet water run; and it refuses to yield this liquid when the snow appears no more upon the ground."

10. de Lahontan, Louis baron 1703  
 New Voyages to North-America. London, 1703, Vol. I, (a) p. 106, (b) p. 249; Vol. II, (c) p. 15.

a. (*Maple syrrop at Green Bay*)

"For Drink they gave me a very pleasant Liquor, which was nothing but a Syrrup of Maple beat up with water; . . . ."

b. (*The mapple-tree*)

"It yields a Sap, which has a much pleasanter taste than the best Limonade or Cherry-water, and makes the wholesomest drink in the World. This Liquor is drawn by cutting the Tree two Inches deep in the Wood, the cut being run sloping to length of ten or twelve Inches. . . Of this Sap they make Sugar and Syrup, which is so valuable, that there can't be a better remedy for fortifying the Stomach. 'Tis but few of the Inhabitants that have the patience to make Mapple-Water, for as common and used things are always slighted, so there's scarce any body but Children that give themselves the trouble of gashing these Trees. . . ."

c. (*Mapletree-Water*)

"I remember one Day in a Village of the Outaouas at *Missilimakinac* a Slave brought into the Cottage where I was, a sort of Vessel made of a thick piece of soft wood, which he had borrowed on purpose, in which he pretended to preserve Mapletree-Water."

11. Dudley, Paul 1720  
*Phil. Trans.*, 31, 27-8.

*An Account of the Method of making Sugar from the Juice of the Maple Tree in New England*

Directions are given for making maple sugar of the juice of the upland maple that is maple trees that grow upon the highlands.

"Some put in a little Beef Sewet, as big as a Walnut, when they take it off the Fire, to make it turn the better to Sugar, and to prevent its candying, but it will do without. . . . our Physicians look upon it not only to be as good for common use as the *West India* sugar, but to exceed all other for its Medicinal Virtue."

12. Charlevoix, P. F. X., de 1721  
 Journal d'un Voyage fait par ordre du Roi dans l'Amérique Septentrionale. Paris, 1744, Vol. III, p. 121; Anon., Journal of a voyage to North-America, London, 1761, Vol. I, p. 191-4; Louise Phelps Kellogg edition, Chicago, 1923, Vol. I, 176-9.

(*Juice of the Maple*)

"I was regaled here with the juice of the maple; this is the season of its flowing. It is extremely delicious, has a most pleasing coolness, and is exceedingly wholesome; the manner of its extracting it is very simple."

13. Rasles, Sébastien 1722

Jesuit Relations, Vol. LXVII. p. 93.

Lettre du Père Sébastien Rasles, Missionnaire de la Compagnie de Jésus dans la nouvelle France, à M. son neveu

Father Rasles is among the Abnakis Indians in Lower Canada and writes on October 15 from Nanrantsouak as follows:

". . . my only nourishment is pounded Indian corn, of which I make every day a sort of broth; that I cook in water. The only improvement that I can supply for it is, to mix with it a little sugar, to relieve its insipidity. There is no lack of sugar in these forests. In the spring the maple-trees contain a fluid resembling that which the canes of the islands contain. The women busy themselves in receiving it into vessels of bark, when it trickles from these trees; they boil it, and obtain from it a fairly good sugar. The first which is obtained is always the best."

14. Beverley, Robert 1722

The History of Virginia. London, 2 ed. 1722, p. 118.

(*The natural Product, and Conveniences of Virginia*)

"The Honey and Sugar-Trees are likewise spontaneous, near the Heads of the Rivers. The Honey-Tree bears a thick swelling Pod, full of Honey, appearing at a Distance like the bending Pod of a Bean or Pea; it is very like the Carob Tree in the Herbals. The Sugar-Tree yields a kind of Sap or Juice, which by boiling is made into Sugar. This juice is drawn out, by wounding the Trunk of the Tree, and placing a Receiver under the Wound. It is said, that the

*Indians* made on Pound of Sugar, out of eight Pounds of the Liquor. Some of this Sugar I examined very carefully. It was bright and moist, with a large full Grain; the Sweetness of it being like that of good Muscovada.

“Though this Discovery has not been made by the *English* above 28 or 30 Years; yet it has been known among the *Indians* before the English settled there. It was found out by the *English* after this Manner. The soldiers which were kept on the Land Frontiers, to clear them of the *Indians*, taking their Range through a Piece of low Ground, about forty Miles above the then inhabited Parts of *Patowmeck* River, and resting themselves in the Woods of those low Grounds, observed an inspissate Juice, like Molasses, distilling from the Tree. The Heat of the Sun had candied some of this Juice, which gave the Men a Curiosity to taste it. They found it sweet, and by this Process of Nature, learn’d to improve it into Sugar. But the Christian Inhabitants are now settled where many of these Trees grow, but it hath not yet been tried, whether for Quantity, or Quality it may be worth while to cultivate this Discovery.

“Thus the *Canada Indians* made Sugar of the Sap of a Tree. And *Peter Martyr* mentions a Tree that yields the like Sap, but without any Description. The *Eleomeli* of the Ancients, a sweet Juice like Honey, is said to be got by wounding the Olive Tree: and the *East-Indians* extract a Sort of Sugar, they call *Jagra*, from the Juice or potable Liquor, that flows from the Coco-Tree: The whole Process of Boiling, Graining and Refining of which, is accurately set down by the Authors of *Hortus Malabaricus*.”

15. Lafitau, Jos. F.

1724

Moeurs des sauvages Ameriquains, comparees aux meours des premiers temps. Paris, 1724, Vol. II, p. 154.

(*Maple syrup*)

“Au mois de Mars, lorsque le Soleil a pris un peu de force, & que les Arbres commencent à entrer en seve, elles font des incisions transversales avec la hache sur le tronc de ces arbres, d’ou il coule en abondance une eau, qu’elles reçoivent dans de grands vaisseaux d’écorce; elles sont ensuite bouillir cette eau sur le feu, qui en consume tout le phlegme, & qui épaisit le reste en consistance de syrop, ou



meme de pain de sucre, selon le degré & la quantité de chaleur qu'ils veulent lui donner. Il n'y a point à cela d'autre mystere. Ce sucre est très pectoral, admirable pour les médicamens; mais quoqu'il soit plus sain que celui des Canes, il n'en a point l'agrément, ni la délicatesse, & a presque toujours un petit goût de brûlé. Les François le travaillent mieux que les Sauvages de qui ils ont appris à le faire; mais ils n'ont pû encore venir à bout de la blanchir, & de la raffiner."

16. Lemery, L. 1745

A Treatise of All Sorts of Foods, Both Animal and Vegetable: also of Drinkables. Translated by D. Hay, London, 3 ed. 1745, p. 351.

*(The sap of the maple)*

"The Body, Branches, and Root of the Maple, yields a sweet and pleasant Sap; this Liquor, Mr. Ray says, is more abounding in cold and rainy Weather, than in any other, While the Birch, on the contrary, yield more in hot and dry Weather."

17. Kalm, Peter 1748

Travels into North America. J. R. Forster trans. London, 1772, Vol. I, 2 ed., p. 132.

*(Treacle and Sugar)*

"When the tree is felled early in spring, a sweet juice runs out of it, like that which runs out of our birches. This juice they do not make any use of here; but in *Canada* they make both treacle and sugar of it."

18. ----- 1765

*Gentlemen's Mag.*, 35, 439.

*(An American discovery)*

"The *Americans* have discovered a method of making sugar from a liquor procured by boring the maple tree. They say that more than 30 gallons have been procured from one tree, which being manufactured after the manner of the syrup proceeding from the sugar canes, produces a sugar equal in goodness to that of *Jamaica*; and that the molasses extracted from the pressure of the liquor, is very little inferior to our *West India* molasses".

19. Bossu, N. 1771

Travels through that Part of North America formerly called Louisiana. Translated from the French by J. R. London, 1771, Vol. I, 188-9.

(*Sagamité sweetened with syrup of the maple tree*)

"After the first ceremonies were over, they brought me a calabash full of the vegetable juice of the maple tree. The Indians extract it in January, make a hole at the bottom of it, and apply a little tube to that. At the first thaw, they get a little barrel full of this juice, which they boil to a syrup; and being boiled over again, it changes into a reddish sugar, looking like *Calabrian manna*; the apothecaries justly prefer it to the sugar which is made of sugar canes. The French who are settled at the Illinois have learnt from the Indians to make this syrup, which is an exceeding good remedy for colds, and rheumatisms . . . they likewise brought a dish of boiled gruel, of maize flour, called *Sagamité*, sweetened with syrup of the maple tree; it is an Indian dish which is tolerably good and refreshing."

20. Adair, James 1775

The History of the American Indians. London, 1775. p. 416.

(*Indians make sugar.*)

"Several of the Indians produce sugar out of the sweet maple-tree, by making an incision, draining the juice, and boiling it to a proper consistence."

21. Carver, Jonathan 1778

Travels through the Interior Parts of North-America in the Years 1766, 1767, and 1768. London, 1778, (a) p. 262, (b) p. 282, (c) p. 496.

a. (*Sugar not a sweetening agent*)

"And even when they consume the sugar which they have extracted from the maple tree, they use it not to render some other food palatable, but generally eat it by itself."

b. (*Present of sugar*)

"In the morning before I continued my route, several of their wives brought me a present of some sugar, for whom I found a few ribands."

c. (*Two sorts of maple trees*)

"Of this tree there are two sorts, the hard and the soft, both of which yield a luscious juice, from which the Indians by boiling make very good sugar. The sap of the former is much richer and sweeter than the latter, but the soft produces the greater quantity. . . ."

22. Bliss, Eugene F. 1782

Diary of David Zeisberger, a Moravian Missionary among the Indians of Ohio. Trans. and ed. Cincinnati, 1885, Vol. I, p. 63, 66, 137, 186, 224, 324; Vol. II, p. 95, 305, 311, 347, 384.

(*Sugar making in Ohio*)

Sugar making was practiced by the Indians of Ohio in the period 1782-1797.

23. Belknap, Jeremy 1784

*Coll. Mass. Hist. Soc.*, [5] 3, 181 (1877).

(*White Mountain Tour*)

"Great quantities of maple sugar are made here. Mr. W. has a set of vats to contain the sap, and a boiling house. They commonly make enough for a year's store. ---- Our bill of fare this day was ham, tongues, dried beef, trouts, and a sauce composed of raspberries, cream, and maple sugar."

24. Hollingsworth, S. 1786

An account of the Present State of Nova Scotia. Edinburgh, 1786, p. 21-2.

(*Natural Productions*)

"----- none is more useful to the inhabitants, than a species of maple, distinguished by the name of the sugar tree, as affording a considerable quantity of that ingredient; ----- the juice flows fast into a vessel placed below to receive it, and decreases in quantity as the sun declines toward evening.

"The sugar, when cold, is of a reddish brown colour, somewhat transparent, and very pleasant to the taste. It can only, however, be considered as of use to the inhabitants within in the province; and they have not failed to ascribe to it several virtues, either real or imaginary, as a medicine."

25. ----- 1788

*Amer. Museum Univ. Mag.*, 4, 349-50.

(*Advantages of the culture of the sugar maple-tree*)

Directions are given for making maple sugar, maple molasses, maple beer, maple wine and maple vinegar.

26. Schöpf, Johann David 1788

Reise durch einige der mittlern und südlichen vereinigten nordamerikanischen Staaten, nach Ost-Florida und den Bahama-Inseln unternommen in den Jahren 1783 und 1784. Erlangen, 1788, Vol. I, p. 417; Alfred J. Morrison, *Travels in the Confederation (1783-1784)*. Philadelphia, 1911, Vol. I, 271-3.

(*Maple sugar is cheaper than ordinary sugar.*)

"The sugar-maple is largely used by the people of these parts, because the carriage makes the customary sugar too dear for them. . . . It is brown, to be sure, and somewhat dirty and viscous, but by repeated refinings can be made good and agreeable."

27. Loskiel, George Heinrich 1789

Geschichte der Mission der evangelischen Brüder unter den Indianern in Nordamerika. Barby and Leipzig, 1789, p. 92-4; C. I. LaTrobe, *History of the Mission of the United Brethren*. London, 1794, Pt. I, p. 72-3.

(*Maple tree is much esteemed.*)

". . . near the Muskingum, sugar is boiled both in spring, autumn, and winter, in case of need. . . . This is used by the Indians either to sweeten their victuals, or in the place of bread: and it is thought more wholesome, and sweeter than our common brown sugar."

28. ----- 1789

*Amer. Museum Univ. Mag.*, 6, 98-101.

*Observations on manufacturing sugar  
from the sap of the maple tree*

Directions for making include use of wooden vessels that "will not give the liquor a bad taste". Too small a grain is due to (1) makers have not used "lime or lye, or anything else, to make it granulate; (2) sugar boiled too much. Author suggests "a heaped spoonful of slacked lime—for about six gallons of sap". If quantity of lime too small,

“the sugar will not be sufficiently grained; if too much, it will give the sugar a reddish cast.”

29. ----- 1790

*Ibid.*, 7, 303-4

*On maple sugar*

“The manufactory of maple sugar opens a wide prospect of wealth to the united states. . . . Hence 250,336 acres of maple land will be sufficient to supply the whole united states.”

30. A Society of Gentlemen 1790

*Univ. Asylum Columbian Mag.*, 5, 106-9, 153-6; *Nova Scotia Mag.*, 3, 249-54; *Annual Register 1791*, 33 (Useful Projects), 93.

*Remarks on the Manufacturing of Maple Sugar*

“A communication of such observations and directions on manufacturing the Maple-Sugar as will be most useful to those who, from situation, interest or patriotism, may be induced to engage in and carry on this business.”

The States of New York and Pennsylvania have “a sufficient number of this kind of tree . . . to supply the whole of the United States, with this article.”

31. ----- 1790

*Ibid.*, 133.

*Maple-sugar. Extract of a letter from Mr. William Cooper, at Cooper's-Town, Pennsylvania*

“Those who think it more profit to clear them off the ground, to make way for wheat or pasture, will please to attend to the following receipt, taken from a farmer who had saved four acres, exposed to the North-West, and then recollect what employment is more profitable.

‘Received, Coopers’ town, April 30, 1790, of William Cooper, sixteen pounds, for six hundred and forty pounds of sugar, at six pence per pound; made every pound with my own hands, without any assistance, in less than four weeks; besides attending to the other business of my farm, as providing firewood, taking care of cattle, etc.

John Nicholls

‘Witness,

‘Richard R. Smith’

32. ----- 1790

*Ibid.*, 5, 203.*Shipment of Maple-Sugar*

... "It has moreover other things in its favour, to recommend it in preference to the sugar which is imported from the West-India Islands. It is made by the hands of freemen, and at a season of the year when not a single insect exists to mix with and pollute it; whereas the West-India sugar is the product of the unwilling labour of negro slaves, and made in a climate and in a season of the year, in which insects of all kinds abound, all of whom feed upon and mix with the sugar, so that the best India sugar may be looked upon as a composition consisting of the juice of the cane—and of the juices or excretions of ants, pismires, cockroaches, borers, fleas, mosquitoes, spiders, bugs, grasshoppers, flies, lizards; and twenty other West India insects. To these ingredients is added, the sweat of the negroes, and when they are angry, nobody knows what else."

33. Lincklaen, John 1791

Travels in the Years 1791 and 1792 in Pennsylvania, New York and Vermont, Journals of John Lincklaen, Agent of the Holland Land Company. Helen Lincklaen Fairchild. New York and London, 1897, p. 88-9.

*(Vermont Journal—September 1791)*

"There is in the whole State a considerable number of Mapple Trees, but the people do not seem to be persuaded of advantages they might gain from this tree. ---- Finally the chief reason for not making sugar is that they have no home market, and that the price of transportation by land is too dear ----."

34. Belknap, Jeremy 1792

The History of New-Hampshire. Boston, 1792, Vol. III, 2 ed., p. 113-6.

*Forest-trees and other Vegetable productions*  
Descriptive of manufacture of maple sugar.

35. Imlay, Gilbert 1792

A Topographical Description of the Western Territory of North America. London, 1792, p. 117-8.

(Maple tree is productive of the finest sugars under care and management.)

“The perfection to which we have brought our sugars has induced many people in the upper parts of the States of New York and Pennsylvania to make a business of it during the season of the juice running; and considerable quantities have been sent to the markets of Philadelphia and York, not inferior to the best clayed, French, and Spanish sugars.”

36. Rush, Benjamin 1793

*Trans. Amer. Phil. Soc.*, 3, (a) 69, (b) 74.

An account of the Sugar Maple-tree of the United States, and of the methods of obtaining Sugar from it, together with observations upon the advantages both public and private of this Sugar.

a. (*Concentration of sap by freezing*)

By freezing the sap, “one-half of a given quantity of sap reduced in this way, is better than one third of the same quantity reduced by boiling.”

b. (*Maple sugar and corn mixture*)

“They mix a certain quantity of maple sugar, with an equal quantity of Indian corn, dried and powdered, in its milky state. This mixture is packed in little baskets, which are frequently wetted in travelling, without injuring the sugar. A few spoonfulls of it mixed with half a pint of spring water, afford them a pleasant and strengthening meal”.

37. Wansey, Henry 1794

The Journal of an Excursion to the United States of North America in the Summer of 1794. Salisbury, 1796, p. 63.

(*Journey from Boston to New York*)

“After passing Middleton, I saw the first maple sugar tree; ----many afterwards that had been tapped. There are many other kinds of maple trees; the black, the white, and the red do not produce the saccharine liquor”.

38. Graham, J. A. 1797

A Descriptive Sketch of the Present State of Vermont. London, 1797, (a) p. 57, (b) 156-7.

a. (*Maple sugar at Sandgate*)

"The making of sugar from the sap of the maple tree, and of pot and pearl ashes, has afforded them great assistance, . . . .".

b. (*Indian method of concentrating sap*)

"The method pursued by the *Aborigines* in making this article was as follows: Large troughs were made of the Pine Tree, sufficient to contain a thousand gallons or upwards; the young Indians collected the sap into these troughs, the women in the mean time (for the men consider every thing but war and hunting as beneath their dignity) made large fires for heating the stones necessary for the process; when these were fit for their purpose, they plunged them into the sap in the troughs, and continued the operation till they had boiled the sugar down to the consistence they wished."

39. -----

1797

*Amer. Univ. Mag.*, 2, 221-4.

*An Account of the Sugar-Maple Tree*

"There are three modes of reducing the sap to sugar: by evaporation, by freezing, and by boiling; of which the latter is most general, as being the most expeditious. . . . It affords a most agreeable melasses, and an excellent vinegar."

40. Allen, Ira

1798

Natural and Political History of the State of Vermont. London, 1798, (a) p. 9, (b) p. 277; *Coll. Vt. Hist. Soc.*, 1, (a) 335, (b) 484 (1870).

a. *Sugar Maple*

". . . other species of useful timber, amongst which is the sugar maple, from which the farmers often make more sugar than serves for the usual consumption of their families, by the use of their kitchen utensils; . . .".

b. *Maple sugar much used*

"Maple sugar forms a great article of domestic consumption, the material is plenty, the preparation easy, the taste agreeable, it seldom cloyes the stomach, it is an excellent antiscorbutic, and so innocent, that it may be taken in almost any quantity by infants."



41. Rush, Benjamin 1798

*Phil. Mag.*, 1, 182-91.

*An Account of the Sugar Maple of the United States*

Descriptive, with a plea for use of this sugar in place of that made by slave labor.

42. Drake, Samuel G. 1799

Tragedies of the Wilderness; or True and Authentic Narratives of Captives. Boston, 1841, (a) p. 197, (b) p. 215.

*(Sugar tubs of elm bark)*

"In this month we began to make sugar. As some of the elm bark will strip at this season, the squaws, after finding a tree that would do, cut it down, and with a crooked stick, broad and sharp at the end, took the bark off the tree, and of this bark made vessels in a curious manner, that would hold about two gallons each: they made above one hundred of these kind of vessels. In the sugar tree they cut a notch, sloping down, and at the end of the notch stuck in a tomahawk; in the place where they stuck the tomahawk they drove a long chip, in order to carry the water out from the tree, and under this they set their vessel to receive it. As sugar trees were plenty and large here, they seldom or never notched a tree that was not two or three feet over. They also made bark vessels for carrying the water, that would hold about four gallons each. They had two brass kettles, that held about fifteen gallons each, and other smaller kettles in which they boiled the water, but as they could not at times boil away the water as fast as it was collected, they made vessels of bark, that would hold about one hundred gallons each for retaining the water; and though the sugar trees did not run every day, they had always a sufficient quantity to keep them boiling during the whole sugar season.

"The way we commonly used our sugar while encamped was by putting it in bear's fat until the fat was almost as sweet as the sugar itself, and in this we dipped our roasted venison".

*(Concentration of maple sap by freezing)*

"Shortly after we came to this place the squaws began to make sugar. We had no large kettles with us this year,

and they made the frost, in some measure, supply the place of fire in making sugar. Their large bark vessels, for holding the stock water, they made broad and shallow; and as the weather is very cold here, it frequently freezes at night in sugar time; and the ice they break and cast out of the vessels. I asked them if they were not throwing away the sugar. They said no; it was water they were casting away; sugar did not freeze, and there was scarcely any in that ice. They said I might try the experiment, and boil some of it, and see what I would get. I never did try it; but I observed that, after several times freezing, the water that remained in the vessel changed its color, and became very sweet."

43. Williams, Samuel 1809  
 Natural and Civil History of Vermont. Burlington, Vt.,  
 1809, Vol. 11, 2 ed., p. 363-4.

*(Manufactures in Vermont)*

"The manufacture of maple sugar is also an article of great importance to the state. Perhaps two thirds of the families are engaged in this business in the spring, and they make more sugar than is used among the people. Considerable quantities are carried to the shop keepers; which always find a ready sale, and good pay. The business is now carried on, under the greatest disadvantages: Without proper conveniences, instruments, or works; solely by the exertions of private families, in the woods, and without any other conveniences than one or two iron kettles, the largest of which will not hold more than four or five pailfulls. . . . This manufacture is capable of great improvements. . . . And it might become an article of much importance, in the commerce of the country."

44. Henry, Alexander 1809  
 Travels and Adventures in Canada and the Indian Territories between the Years 1760 and 1776. New York, 1809,  
 (a) p. 69, (b) p. 70, (c) p. 143.

*a. (Sap flow)*

"When, in the morning, there is a clear sun, and the night has left ice of the thickness of a dollar, the greatest quantity is produced."

b. (*Sugar diet of the Ojibwas*)

"... we hunted and fished, yet sugar was our principal food during the whole month of April. I have known Indians to live wholly upon the same and become fat".

c. (*Squaws make the sugar.*)

"... we turned our attention to sugar making, the management of which—belong to the women, the men cutting wood for the fires, and hunting and fishing".

45. ----- 1814

*Coll. Mass. Hist. Soc.*, [2] 3, 114 (1846).

*Note on New Holderness, N. H.*

"The prevailing wood is oak, but there is a good deal of other wood, particularly of pine, beach, and maple. From the sap of the black, or sugar maple, (*acer saccharinum*) a considerable quantity of sugar is made."

46. Dwight, Timothy 1821

*Travels in New-England and New-York.* New-Haven, 1821, Vol. 1, p. 40.

(*Descriptive*)

"The sap of this tree is a very pleasant drink; and the sirup is by many persons preferred to honey."

47. Hunter, John D. 1823

*Manners and Customs of Several Indian Tribes Located West of the Mississippi.* Philadelphia, 1823, p. 315.

(*The sugar month of the Indians*)

"... and the thirteenth month is the sugar month because in it they manufacture their sugar, from the maple and box elder trees."

48. Hunter, John D. 1824

*Memoirs of a Captivity among the Indians of North America, from Childhood to the Age of Nineteen.* London. 1824, 3 ed. p. 290.

(*Indian's fondness for maple sugar*)

"In districts of country where the sugar maple abounds, the Indians prepare considerable quantities of sugar by simply concentrating the juices of the tree by boiling, till it acquires a sufficient consistency to crystallize on cooling. But, as the are extravagantly fond of it, very little is preserved beyond the sugar-making season. The men tap the

the trees, attach spigots to them, make the sap troughs; and sometimes, at this frolicking season, assist the squaws in collecting sap."

## 49. Keating, William H.

1824

Narrative of an Expedition to the Source of St. Peter's River, Lake Winnepeek, Lake of the Woods, &c. Philadelphia. 1824. Vol. 1, p. 114.

*(Description of rude process practiced by Indians)*

"We are informed, that they profess to have been well acquainted with the art of making maple sugar previous to their intercourse with white men. Our interpreter states that having once expressed his doubts on the subject in the presence of José Renard, a Kickapoo chief, the latter answered him immediately with a smile, 'Can it be that thou art so simple as to ask me such a question, seeing that the Master of Life has imparted to us an instinct which enables us to substitute stone hatchets and knives for those made of steel by the whites; wherefore should we not have known as well as they how to manufacture sugar? He has made us all, that we should enjoy life; he has placed before us all the requisites for the support of existence, food, water, fire, trees. etc.; wherefore then should he have withheld from us the art of excavating the trees in order to make troughs of them, of placing sap in these, of heating the stones and throwing them into the sap so as to cause it to boil, and by this means reducing it into sugar.'"

## 50. James, Edwin

1830

A Narrative of the Captivity and Adventures of John Tanner. New York, 1830, (a) p. 294, (b) p. 321.

a. *(Objibwa names for the sugar maple and the river maple trees)*

Nin-au-tik = sugar maple (our own tree). She-she-gum-maw-wis = river maple (sap flows fast).

b. *(Menominee name for sugar moon)*

Sho-bo-maw-kun ka-zho = sugar moon.

## 51. Bouchette, Joseph

1832

The British Dominions in North America. London, 1832, Vol. 1, p. 371-2.

*Manufactures—Maple Sugar*

"Maple sugar will nevertheless ever continue a favourite luxury, if not a necessity, with the Canadian peasant, who has not unaptly been considered as having for it the same sort of natural predilection that an Englishman has for his beer, a Scotchman for his scones, and a Mexican for his pulque."

52. Evans, Francis A. 1833  
The Emigrant's Guide to Canada. Dublin, 1833, p. 105-7.  
*On Making Maple Sugar*  
Descriptive.
53. ----- 1837  
*Graham J.*, 1, 87  
*Maple Sugar*  
Farmers owning "sugar lots" are urged to give attention to the subject of making sugar at home, for there are many who would purchase maple sugar if it were brought into market in a suitable state for common use. It would make the best of loaf sugar, and the molasses made from it would be of a superior quality. Those who are opposed to the use of "free labor produce" should be interested in this phase of the subject.
54. Jameson, Anna B. 1838  
Winter Studies and Summer Rambles in Canada, London, 1838, Vol. III, p. 217.  
(*Manufacture of sugar by the daughter of Waub Ojeeg*)  
"A large tract of Sugar Island is her property; and this year she manufactured herself three thousand five hundred weight of sugar of excellent quality."
55. Ducatel, ---- 1846  
*Catholic Mag.*, 5, 92.  
*A Fortnight among the Chippewas of Lake Superior*  
"The birchbark is made into troughs (pisketahnahgun) in which the maple sugar (sinzibuckwud) is gathered in March and April. ---- With the birch bark is also manufactured the sugar basket (mukkuk) -----."
56. Sparks, Jared 1848  
The Library of American Biography. Boston, 1848,  
[2] Vol. VII. p. 189.

*Life of Sebastien Rale*

"His constant food was Indian corn, of which, pounded in a mortar and boiled, he made hominy. The only condiment he could have was supplied by maple sugar, prepared in the spring by the women, who collected the sap of the trees in vessels of bark, and boiled it down."

57. Gesner, Abraham 1849  
 The Industrial Resources of Nova Scotia. Halifax,  
 1849, p. 213.

*Manufactories—Maple Sugar*

"This sugar may be made as white and as lively as any from the tropical climates. The kind usually made is sold in small brown cakes. The sap also affords a delicious syrup, and the 'last run' makes excellent vinegar."

58. Morgan, Lewis H. 1851  
 League of the Ho-de-no-sau-nee, or Iroquois. Rochester,  
 1851, p. 369.

*(Sugar from the maple)*

"Our Indian population have been long in the habit of manufacturing sugar from the maple. Whether they learned the art from us, or we received it from them, is uncertain. One evidence, at least, of its antiquity, is to be found in one of their ancient religious festivals, instituted to the maple, and called the Maple dance."

59. Schoolcraft, Henry R. 1852  
 History Condition and Prospects of the Indian Tribes  
 of the United States. Philadelphia. 1852. Vol. II, p. 55.

*Sugar-Making*

"It forms a sort of Indian carnival. The article is profusely eaten by all of every age, and a quantity is put up for sale in a species of boxes made from the white birch bark, which are called mococks, or mokuks. These sugar-boxes are in the shape of the lower section of a quadrangular pramid. . . . miniature mokuks are ornamented with dyed porcupine quills, skilfully wrought in the shape of flowers and boxes.

"The heydey scenes of the Seensibaukwut, or sugar-making, crown the labors of the spring. The pelt of animals is now out of season, winter has ended with all its

vigors, and the introduction of warm weather prepares the Indian mind for a season of hilarity and feasting, for which the sale of his 'golden mokuks' gives him some means."

60. Jones, Electa F. 1854  
Stockbridge, Past and Present. Springfield, 1854, (a)  
p. 23, (b) p. 26-7.

(*Maple sugar made by Stockbridge Indians*)

"The Muh-he-con-ne-ak . . . manufactured large quantities of Maple Sugar. And indeed we seem to be chiefly indebted to them for the knowledge of this luxury, for as late as 1749, Mr. Hopkins, in writing of Stockbridge and its Indians, not only describes its taste, and the manner in which it is *made*, but tells *what it is*, as if very little known."

b. (*Legend of the origin of maple sap*)

"They had a rare acquaintance with heavenly bodies; even the children could tell their names; and it is an interesting fact, that not only Muh-hu-con-ne-ok, but other New England Indians, gave the name of "The Bear" and "*Great Bear*" to the same constellation which is so called by European nations. Their mythological account was this: — that these stars were so many men engaged in a bear hunt. They commenced the hunt in the spring, and by autumn had wounded the animal, so that his blood was falling upon the forests, and dyeing them with those beautiful hues of the season. In the winter they slew him, and the snow was but his dripping oil. ----- This melted in the spring, and furnished the trees with sap."

61. Kohl, Johann G. 1860  
Kitchi-Gami. Wanderings around Lake Superior. London, 1860. p. 318.

(*Maple sugar as preservative and condiment*)

"The Indians dry it ('pagessaneg' des prunes sauvages—wild plum) at times, but more usually boil it with maple sugar, and make it into a sort of cake, or dough. They boil and stir the plums in the kettle, until the mass becomes thick; they spread it out on a piece of skin or birch bark for the thickness of an inch, and let it dry in the sun. It supplies a tough, leathery substance, which they roll up and

pack in their 'makaks' (birch-bark boxes). These are then placed in holes in the ground, like so many other things of their housekeeping, and covered with earth. It keeps sweet a long time and in winter they cut off pieces, which they boil with dried meat. 'C'est bon-bon, monsieur—tout à fait'.

"Whether the art of preserving fruit with sugar is an old invention of the Indians I am unable to say, but I believe so, for it has been ascertained that the manufacture of sugar was pre-European among the Indians. Besides, the use of sugar as the universal and almost only condiment in Indian cookery is most extended. Sugar serves them, too, instead of salt, which even those who live among Europeans use very little or not at all. They are fond of mixing their meat with sweets, and even sprinkle sugar or maple syrup over fish boiled in water. They have a perfect aversion for salt. ---- That great cookery symbol, the salt-box, which is regarded among many salt-consuming nations with a species of superstitious reverence, is hence hardly ever found in an Indian lodge. But the larger sugar makak may be always seen there, and when the children are impatient, the mother gives them some of the contents, and they will sit at the door and eat sugar by handfuls."

62. ----- 1860

Canadian Settlers' Guide. 1860, p. 66; Chamberlain, *Am. Anthropol.*, 4, 39 (1891).

*(Flavor due to bark vessels)*

"The Indian sugar (maple), which looks dry and yellow and is not sold in cakes but in birch boxes, *mowkowks*, as they call them, I have been told owes its peculiar taste to the bark vessels that the sap is gathered in, and its grain to being kept constantly stirred while boiling".

63. Hind, Henry Youle 1860

Narrative of the Canadian Red River Exploring Expedition of 1857 and of the Assiniboine and Saskatchewan Exploring Expedition of 1858. London, 1860, Vol. I, p. 127-8.

*(Sap of ash-leaved maple used for sugar making)*

"The maple, which at one time grew in considerable quantities near Sugar Point, is not the true sugar maple



(*Acer saccharinum*) so common in western Canada, but another species, generally known as the ash-leaved maple (*Negundo fraxinifolium*), also furnishing an abundance of juice from which sugar is made as far north as the Saskatchewan."

64. Poore, Ben Perley 1866  
Report of the Commissioner of Agriculture for the Year 1866. Washington, 1867, p. 500.  
(*An Indian festival dish*)  
"From the sap of the maple tree they made a coarse-grained sugar, which, when mixed with freshly pounded 'suppaun' and seasoned with fried whortleberries, was baked into a dainty dish for high festivals."
65. Wheeler, Timothy 1869  
*New England Farmer*, Boston, Oct. 9, 1869.  
(*Indian rule for predicting the character of the sugar season*)  
"If the maple leaves ripen and turn yellow, and the buds perfect themselves so that the leaves fall off naturally, without a frost, then there will be a good flow of sap the following spring; but if there is a hard frost that kills the leaves and they fall off prematurely, before the bud is perfected, then we may look out for a poor yield of sap. In other words, the flow of sap will be more or less abundant in proportion to the ripness of the tree before the frost of the previous autumn".
66. Leland, Charles G. 1884  
*Algonquin Legends of New England*. Boston, 1881, p. 121.  
(*A Penobscot legend*)  
"Now Wasis was the Baby. And he sat on the floor sucking a piece of maple sugar, greatly contented, troubling no one."
67. Brinton, Daniel G. 1885  
*The Lenape and Their Legends*. Philadelphia, 1885, p. 255.  
(*Algonkin Indians prefer maple sugar.*)  
The general name applied by the Iroquois to the Algonkins is given as *Ratironmaks*, from *karonta*, tree, and *ikeks*,

to eat, "Tree-eaters". They were probably so called from their love of the product of the sugar maple.

68. Blackbird, Andrew J. 1887

History of the Ottawa and Chippewa Indians of Michigan. Ypsilanti, 1887, p. 72.

*(Indian legend of sugar trees)*

"The legends say, that once upon a time the sugar trees did produce sap at certain seasons of the year which was almost like a pure syrup; but when this mischievous Nēnaw-bo-zhoo had tasted it, he said to himself, 'Ah, that is too cheap. It will not do. My nephews will obtain this sugar too easily in the future time and the sugar will be worthless'. And therefore he diluted the sap until he could not taste any sweetness therein. Then he said, 'Now my nephews will have to labor hard to make the sugar out of this sap, and the sugar will be much more valuable to them in the future time.'"

69. Henshaw, H. W. 1890

*Amer. Anthropol.*, 3, 341-51.

*Indian Origin of Maple Sugar*

"Considering the great familiarity of the Indians with the natural edible products of America, and the general ignorance of the European on this subject, it is fairly to be inferred that the *a priori* likelihood of the discovery of the properties of the maple sap is all in favor of the Indian."

70. Chamberlain, A. J. 1891

*Ibid.*, 4, 39-43.

*The Maple Amongst the Algonkian Tribes*

The legend of the Menomine Indians on the origin of maple sugar making runs as follows: "One day Nokomis, the grandmother of Manabush, was in the forest and accidentally cut the bark of a tree. Seeing that a thick syrup exuded from the cut, she put her finger to the substance, and upon tasting it found it to be very sweet and agreeable. She then gave some of it to her grandson, Manabush, who liked it very much, but thought that if the syrup ran from the trees in such a state it would cause idleness among the women. He then told Nakomis that in order to give his aunts employment and keep them from idleness

he would dilute the thick sap whereupon he took up a vessel of water and poured it over the tops of the trees, and thus reduced the sap to its present consistency. This is why the women have to boil down the sap to make syrup."

71. Chamberlain, A. F. 1891  
*Ibid.*, 381-3.

*Maple Sugar and the Indians*

Evidence is presented in support of the claim that the American Indian first made maple sugar.

72. Carr, Lucien 1895  
*Proc. Amer. Antiq. Soc.*, [ns] 10, 155-90.

*The Food of Certain American Indians  
 and Their Methods of Preparing it*

"It was made wherever the tree grew, and it found special favor as an ingredient in their preparation of parched cornmeal or as we call it, nocake or rockahominy. They also cooked corn in the syrup 'after the fashion of par-lines,' which was a favorite dish with them, as a similar preparation is today with us; and in more recent times they also made a preserve of plums which is said to have been good. Among some tribes, and in recent times, this sugar may be said to have taken the place of salt, though this latter article was known from the earliest times."

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 Accidental discovery by English<sup>44</sup>  
 Birds puncture bark to drink sap<sup>25</sup>  
 Frenchmen learn of it from Illinois Indians<sup>19</sup>