

## Ash to Cash – The Untold Story Nature’s Burnt Offering to 19<sup>th</sup> Century Settlers

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# Ash to Cash – The Untold Story Nature's Burnt Offering to 19<sup>th</sup> Century Settlers

By Georges Létourneau and Jay Sames

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"Life must be lived forward, but it can only be understood backward."

*Søren Kierkegaard*

The arc of history can often be seen only at great temporal remove. Only then is the importance of certain practices revealed. Likewise, some undertakings are so prevalent and quotidian that their mention seems almost unnecessary. Thus, it seems, was nascent potash production. Everyone saved ash from the woodstove; it's how you made soap. Doing so was as unremarkable as feeding the horses or collecting the eggs. Like eggs, you could sell excess ash. Perhaps the sheer normalcy of ash collection is why it has been given scant attention in the histories of Lower Canada. But whether left unmentioned due to ignorance or to misunderstanding, the sale of potash contributed significantly to the prosperity of the Eastern Townships in the first half of the 19<sup>th</sup> century.

"[A] man's profits are never greater than at the time of clearing his lands", wrote Judge William Cooper, founder of Cooperstown, New York<sup>[1]</sup>. The pioneers of Eastern Townships

knew that. They actively cut down trees, and burned the trunks, branches and stumps to produce potash, which sold at good profit. The demand for potash, and the price paid for it, became quite high when that demand later included industrial operations.

Potash was, during the pioneer era, extracted from hard wood ashes, and rather easily produced. You leached one volume of ashes with two volumes of water, and boiled the water until you had a black cake of salts. These black salts could be sold as such, or baked into pearl ash (so called because of its white color) by heating the black salts to 1000 degrees Fahrenheit and boiling them to remove all impurities. Pearl ash was only made by asheries who had more expensive kettles that could withstand the necessary heat. To yield more potash, some used boiling water at the beginning of the leaching, and others leached the same ashes twice.

## A Very Ancient Craft

The use of ashes goes back thousands of years. It is recorded that the Babylonians were making soap as early as 2800 BCE to

clean wool in preparation for weaving. The first definite and tangible proofs of soap-making are found on a clay tablet from Mesopotamia, dated 2200 BCE, where an actual soap recipe is given. In Rome, Pliny the Elder described soap-making from goat tallow and ashes. Even the ruins of Pompeii include a soap factory, complete with finished bars. In Mexico, as early as three thousands years ago, ashes were used when boiling maize to make hominy.

Nearer to us, in Nouvelle-France, the production of potash was promoted by Intendant Talon. In 1669, he gave to Nicolas



*Pioneers cut down trees and burned the trunks and branches to ash from which they produced potash. Prices were so good in the first half of the 19<sup>th</sup> century that some farmers did little else.  
(Photo not from Sutton.)*



Farmers kept some potash for their own use. Most families made their own soap in their back yards, which they used around the house. (Photo not from Sutton.)

Follin the exclusive right to produce potash from ashes collected from the inhabitants of Québec. In 1671, Talon built a potashery in Québec that stopped production only a few years after his departure.

### The Growing Needs of English Industries

The production of potash resumed with the arrival of the British. English industries needed potash to process tons of wool from Australia and tons of cotton from America. The British Empire was expanding too, creating an ever more numerous clientele for British products. Processing wool and cotton means washing, bleaching and dyeing, and potash is essential in all three operations. England was producing cheap glassware in large quantities for its colonies, as well as expensive lead crystal for export. Making glass takes potash. In 1750, John Mitchell, a Cambridge professor, in a presentation to the Philosophical Transactions of the Royal Society, concluded: "No nation can do without potash, an essential ingredient in soap, dye, bleach and glass, and England is a nation that does not know how to make it right."

There were no large forests in England, and what remained was protected, or used only to build ships, houses and furniture. (Heating was done using coal, not wood.) Aware of this, the Commerce Board continually asked Governors of colonies to promote the production of potash, but the Governors always found excuses not to do so. The first few who tried went bankrupted because of lack of competence, and it was soon judged too risky.

### Beginnings of Production in Lower Canada

Finally, after the American War of Independence, in northern New York and Vermont where by 1780 thousands of farmers had settled, merchants started to buy ashes and make potash. Potash brought high prices, and the large quantity of cheap ashes meant huge profits. Many were motivated to go into potash production. At the same time, Americans, loyalists and others moved to Lower Canada bringing with them not only the skills for making potash, but the motivation of great profit. The Eastern Townships, which at the time extended from the Richelieu River to Lac Mégantic, became home to the majority of the American immigrants, and potash-making spread quickly through all of southern Québec, anywhere hardwood grew in large quantities.

Most merchants accepted black salt and ashes in exchange for goods; there was profit in reselling ashes and producing black salt. In her *History of the Eastern Townships*, 1869,

Catherine M. Day noted that asheries were usually an appendage of a store.

### The Export Demand

In Europe, the Napoleonic Wars (1799-1815) caused an increase in the North American potash trade. Between 1806 and 1808, the Continental Embargo proclaimed by France and its allies against England, the embargo by England against France, and the embargo of the United States against England, brought international commerce to a standstill. England had to rely entirely on its colonies for potash, and Canada was the only reliable supplier. By 1809, the price of potash was so high that farmers became more interested in burning wood to make potash than in doing anything else. Considerable quantities of potash were made in the Eastern Townships. Reverend Charles Stewart reported in 1815 that some farmers, in fact, did nothing else. This continued for many years.

The first export to England was made in 1765, but it remained a low-key activity until 1800. Then, in the first half of the 19<sup>th</sup> century, production escalated. In 1832, Joseph Bouchette, general surveyor of Lower Canada, published his *Topographical Dictionary of the Province of Lower Canada*. In it he records 211 potasheries and 157 pearl asheries. About the same time, fiscal year 1835-36, potash exports from Lower Canada rose to 6003 tons.<sup>[2]</sup>

To appreciate what it takes to produce 6003 tons of potash, first note that this is over 12 million pounds. It takes 10 pounds

of ashes to produce one pound of potash, and 12 pounds of wood must be burned to yield just one pound of ashes. Thus it was what pioneers cut and burned: over 1.44 billion pounds of wood to produce these 6003 tons of potash, and they did so annually for many years. This represented revenues of \$723,600<sup>[2]</sup>, which in 2012 dollars comes to about \$18 million.<sup>[3]</sup>

### Potash: The Heart of Lower Canada's Rural Economy

By 1850, there were 519 asheries in Canada, and in the best years some 45,000 barrels of potash - 20 pounds each - were exported. Those 11,700 tons of potash (23.4 million pounds) represented the burning of 2.81 billion pounds of hardwood. And while the price paid for potash was in 1850 less than 40 % of what it had been in 1830, annual production since 1830 had almost doubled, and better roads had made exportation cheaper and easier. Further, since the purchasing power of a dollar had also risen by nearly 18 % since 1830, potash production remained a profitable endeavor.<sup>[4]</sup> A twenty inch elm brought in \$200 of potash, or nearly \$6,000 in 2012 dollars! The average farm's annual revenue from farming was \$500 in 1850, and a farmhand was paid \$12.50 a month, though that often included room and board. A carpenter worked for \$1.40 a day. Thus it was understandable that everybody who had a woodlot was burning wood and selling ashes or black salt. Poor settlers depended on black salt for a decent living.

Lower Canada had been, by far, the most important producer of potash, and by 1850 it was almost the sole producer. Potasheries were in operation in all major Township cities, and they utilized ashes bought from city and country sources alike.

During this period, some complained that farming was being neglected. But farmers were only being practical. They were now able to *buy* what they no longer produced, and there was money left over to improve their standard of living. Farmers with actual cash to spend couldn't help but change the economy of the region, as well as the lifestyle of its citizens.

### Historians Largely Silent on Potash

Traditional histories of Lower Canada do not give potash its due. Not until 1937 did Raoul

Blanchard write that black salts were an absolutely necessary export product. It was through the production of potash that agriculture made a start; potash propelled prosperity in the Eastern Townships until the middle of the 19<sup>th</sup> century.<sup>[5]</sup>

Not until the article by Harry Miller of Sutton, "Potash from Wood Ashes: Frontier Technology in Canada and the United States," published in a 1980 issue of *Technology and Culture* (an American publication,) was the topic given due emphasis. Even so, the limited quantity and distribution of this magazine left the topic largely unconsidered.

Paul Keesler, in researching his history of New York's Mohawk Valley, writes, "A remarkable land-use industry developed in upstate New York in the late 1700s and continued well into



Made at Les Forges du Saint-Maurice about 1840, this potash kettle is 43 ¾ inches wide and weighs 500 pounds. It is pictured with Harry Miller's granddaughter at his home in Sutton.

the 1800s. The raw materials for this industry were trees, millions and millions of trees. The product was potash, millions of tons of potash. The impact this industry had on the forests and the finances of early settlers was so enormous, it seems impossible it was all but lost to history."<sup>[6]</sup> The same was true in Lower Canada, in an area that encompassed all the lands from the previously-harvested shores of the St. Lawrence River all the way to the United States border.

Why the traditional telling of Canadian and Québécois history largely ignores the potash contribution is impossible to say. The hard times, and the courage and perseverance of the early settlers—who came to their lot with only a horse or an ox, or perhaps none—are described at length. But nobody has tried to explain how these people,

lost as they were in the woods—with hardly more than the essentials to survive, and with virtually no communication and little commerce with the outside world—got richer. It seems potash production was a big contributor.

By 1830, the settlers in southern Québec were doing almost as well as farmers in the St. Lawrence valley. By 1850, many were actually richer than their agrarian counterparts. And by 1860, stores and artisans were numerous, and small industries were flourishing. Yet nobody, before Blanchard, spoke of the importance of potash in the enrichment of Lower Canada. More and more, modern writers complain that our historians ignore the great impact of potash production on the early prosperity of Eastern Township settlers. But no one updates the official histories.

Perhaps looking back is the way to see it. Knowledge of collecting ashes goes back to the beginning of time. The motivation to create a potash *industry* seems to have moved north with American settlers. "You will probably expect from me," wrote Judge William Cooper, "some calculations of the costs of clearing new lands...[I]t is...good to observe, that a man who is careful with his ashes...[will] profit[] by the advantage which new clear land affords...The ashes and the first crop..., being thus obtained without trouble or tillage, will produce a better profit than could be obtained from the tillage of a lean soil in an old improved farm...[A] man's profits are never greater than at the time of clearing his lands."<sup>[7]</sup>



*The Boright & Safford store, built in 1861, is a symbol of the economic prosperity potash brought to Sutton.  
(Source: Brome County Historical Society)*

## FOOTNOTES

- <sup>[1]</sup> *A Guide to the Wilderness*, Judge William Cooper, 1810, 1897, 1936, p. 39. This is a series of letters in answer to a general query by William Sampson, a barrister in New York City, asking Cooper to explain how best to homestead in the wilderness. It was published in Sampson's native Ireland the year after Cooper's death. Sampson believed it important but had failed to find a publisher in New York City.
- <sup>[2]</sup> Governmental Statistics on Export and Import, 1835-1836.
- <sup>[3]</sup> Current-dollar calculations are always difficult, and are prone to large errors. The multiplier used is 25 to 1, 2012 to 1835 dollars, and is from <http://www.davemanuel.com/inflation-calculator.php?> This site calculates inflation of US dollars over historical periods.
- <sup>[4]</sup> By 1850, that multiplier had actually grown to \$29.41. *Ibid.*
- <sup>[5]</sup> *Les Cantons de l'Est*, Blanchard, Raoul, Université de Grenoble, 1937.
- <sup>[6]</sup> M. Paul Keesler, 2002, in writing his book *MOHAWK-Discovering the Valley of the Crystals*, 2009, published posthumously. M. Paul Keesler died in 2005. Generally: <http://www.mpaulkeeslerbooks.com/Mohawk.htm> Specifically: <http://www.mpaulkeeslerbooks.com/Potash.html> Biography: <http://www.mpaulkeeslerbooks.com/default.htm#M.%20Paul%20Keesler>
- <sup>[7]</sup> *A Guide to the Wilderness*, Judge William Cooper, 1810, 1897, 1936, p. 38-39.

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## Un résumé de l'article : Ash to Cash

par Georges Létourneau

*Georges Létourneau est membre d'Héritage Sutton. Médecin militaire à la retraite, il habite Sutton depuis 25 ans et s'est joint à Héritage Sutton dès son arrivée. Il contribue par ses recherches, ses articles et son engagement à faire connaître l'histoire locale et régionale auprès de divers publics.*

Les pionniers des Cantons de l'Est ont brûlé les arbres pour produire de la potasse, un produit qui se vendait à bon prix. C'était souvent leur unique source de revenus en attendant que la terre ne produise, et plusieurs d'entre eux ont déboisé plus que nécessaire pour profiter de la manne.

Produire de la potasse est relativement simple : on filtre deux volumes d'eau au travers d'un volume

de cendres de bois franc; on fait bouillir cette eau jusqu'à l'obtention d'un sel noirâtre. On peut vendre ce sel tel quel et on peut aussi le cuire à 1000 degrés F pour obtenir un sel blanc purifié et un meilleur prix.

La potasse entre dans la fabrication de nombreux produits dont le savon, une recette connue depuis plus de 3000 ans. Talon a introduit la production de potasse en Nouvelle-France en

1669, mais cette initiative n'a pas survécu au départ de l'intendant. Il faut attendre l'arrivée des Anglais en 1765 pour qu'elle réapparaisse. Dans les Cantons de l'Est, la production de potasse a été popularisée par les colons américains venus de la Nouvelle-Angleterre où cette activité était répandue.

La révolution industrielle que vit l'Angleterre au début du XIX<sup>e</sup> siècle fait exploser la

demande de potasse. L'industrie textile est particulièrement gourmande avec ses tonnes de laine et de coton à laver, blanchir, teindre, trois opérations qui nécessitent des tonnes de potasse. Les industries du verre et de la porcelaine en consomment aussi en grande quantité.

Les guerres napoléoniennes coupent l'Angleterre de ses sources d'approvisionnement européennes et la forcent à trouver de la potasse ailleurs. C'est alors que le Canada devient son principal fournisseur. La demande fait monter les prix et les fermiers canadiens en profitent. Le Révérend Charles Stewart de la seigneurie Saint-Amand se plaint, en 1815, que les fermiers ne font que brûler du bois et faire de la potasse, négligeant leurs fermes. Le Bas-Canada est de loin le principal producteur, et il est même quasiment le seul à partir de 1850.

En 1835, on dénombre 368 potasseries qui produisent 6 003 tonnes de potasse; en 1850, leur nombre atteint 519 et la production 11 700 tonnes. Les exportations de 1835 ont rapporté 723 600 \$, ce qui équivalait à 18 M \$ en dollars de 2012. Entre 1835 et 1850, les prix ont baissé de 60 % du prix. Toutefois, comme les ventes ont quasi doublé et que le pouvoir d'achat du dollar est 18 % supérieur à ce qu'il était en 1835, la situation économique des producteurs de potasse ne s'est pas détériorée.

Pour comprendre l'importance de la production de la potasse, il faut savoir que dix livres de cendres sont nécessaires pour produire une livre de potasse et qu'il faut douze livres de bois pour produire une livre de cendres. Au total, c'est donc 1,44 milliard de livres de bois qui ont été brûlées en 1835 et 2,80 milliards en 1850 (un arbre de 20 pouces de diamètre pèse environ 2000 livres).

La découverte de mines de potasse en Europe fait chuter les prix après 1850. Les ventes de la potasse canadienne obtenue par brûlage chutent. Elles sont négligeables en 1900. La potasse a perdu son importance économique.

Pourquoi l'histoire officielle a-t-elle oublié l'importance économique de la production de potasse au Bas-Canada, particulièrement dans les Cantons de l'Est? Comment expliquer en effet qu'on insiste, avec raison, sur les difficultés et le courage des pionniers des Cantons de l'Est, qu'on applaudisse leurs succès mais qu'on ignore une production qui leur a fourni le capital nécessaire à cette réussite?



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