Pioneers Learn Art of Making Maple Syrup, Sugar from Indians

Although the number of local manufacturers of maple syrup in Halton and district is gradually diminishing, the thick - running, golden brown liquid still holds a glimmer of the pioneer spirit.

It's not certain how long sugar and syrup have been made from the sap of the maple tree. However, white men learned the art from the Indians. With a few modern improvements, the gathering of Nature's sweet bonus goes on today much as it did before the earliest pioneers walked in wonder through this land.

There is a legend which tells how an Indian woman was cooking meat for her brave's supper in the sap of the maple, and, being called away from her cooking, allowed the sap to boil away. Her husband returned and found, to his delight, that a sweet liquid of delicious flavor had been produced. Henceforth, the Indians used the method to provide an added delicacy to their diet, the government magazine Sylva records.

The white man adopted the Indians' process and for many years maple sugar and syrup were the only sugar used by most settlers in the northern part of the United States and Canada. It was not until after the American Civil War that cane sugar became cheap and replaced maple sugar as the source of domestic supply.

The area of maple sugar and syrup production extends from the Atlantic coast to Wisconsin and Minnesota and from the south slopes of the Laurentian Shield in Canada to southern Ohio and Pennsylvania. It dips south along the Appalachians into Kentucky and Virginia.

In Canada, Quebec is the major producer, with Ontario second. A small quantity is produced in the Maritime provinces. Production has declined in Ontario in the past few decades.

The white man for many years followed the crude methods used by the Indians for making syrup. This consisted of cutting a diagonal slash in the bark of the tree and fixing a wooden spout in a notch at the bottom of the slash so that the sap dripped into a vessel made from birch bark. The sap was then boiled in a kettle over an open fire.

White Man Improves

The white man has improved considerably on these crude methods, but the technique has not fundamentally altered in the last 100 years, except for the introduction of evaporators. These affected a great saving in fuel and man-hours.

When the weather becomes such that the temperature in the daytime is well above freezing, and goes down below 32 degrees F. at night, it is time to tap. The tapping time usually comes between late February and late March. The length of the season is dependent on the weather and may last from eight to ten days to a month or so.

As there is usually a fair depth of snow in the bush at tapping time, the first step in tapping is to break out roads, so that it will be easy to get around to tap the trees and collect the sap. The trees are tapped at about three to four feet above ground. The old brace-and-bit used for drilling the tap-hole into the tree has been replaced to some extent by the more modern power drill, much as the power saw is replacing the axe. The tap-hole extends two to three inches into the tree or about the distance of the sapwood.

There is some flow of sap in the heartwood, but it has been found that about 80 per cent. of the sap flow is in the sapwood and that the sap from the heartwood is of poor quality. A spile is driven into the tap-hole and a bucket hung from it.

The sap must be collected fresh as bacteria and other organisms soon get into it and their action may cause an unpleasant flavor. This is particularly true later in the season when the weather gets warmer. It is the chief cause of the so-called "buddy sap."

Early Pioneers

In early pioneer days, most of the sap was collected in buckets suspended from each end of a yoke fitted over a man's shoulders. Teams and sleighs with sap tanks were used later. Now, tractors are replacing horses to haul the sleighs. (It is of interest that cost of collection with a team was found to be slightly less than the cost with a tractor in a recent economic investigation in Ohio.)

Boiling of the sap is carried out in the "sugar house", centre of sugar bush activity, in evaporators with corrugated bottoms over wood fires. The corrugation increases the surface heated and speeds up the boiling.

The standard syrup is a liquid which boils at 219 degrees F. at sea level. A reduction of - degree F. is allowed for every rise of 500 feet in altitude. This liquid will weigh about 13.2 lbs. per imperial gallon. It will contain 65 per cent. solids by weight or about 85 lbs. of sugar per imperial gallon. Hydrometers are used to check the density of the syrup.

The hot syrup is usually put through filters to remove the malate of lime and any other material which may have precipitated out during boiling, then placed in settling cans for 24 hours. The cans have a spigot, so the syrup can be drawn off, leaving the sediment behind. Syrup is commonly marketed in gallon or half-gallon tin cans and may be canned either hot or cold.

Maple sugar is made in a sugaring-off pan, separate from the evaporator. The syrup is heated until it boils at 238 degrees F. to 240 degrees F. at sea level to obtain sugar which is 80 per cent. solid sugar. This is called tub sugar or soft sugar. The syrup must be stirred during sugaring-off to prevent burning.

New Equipment

New equipment for the maple syrup industry which has appeared recently includes a vinylite collecting bag which fits over a special spile, a power-driven tapping machine run by a small gasoline motor and plastic piping for piping sap to the storage tank and for fittings.

Tests have shown that the amount of sap produced by a tree of given diameter is directly proportional to the total crown area of the tree. The yield increases greatly with an increase in diameter. The average annual syrup yield per acre of sugar bush has been shown to be 6.96 gallons.

Usually the yield per acre is much higher in forest stands than open stands. The stand composition has been found to have little effect on yield except as it affects tree form and the number of maples per acre. Cull and over-mature trees produce quite well as long as they have healthy crowns and root systems.

This has not been a good year for maple syrup in this locality.

THE RUN OF THE SAP is now over, but as a result of the few short short weeks of hard work in tapping, gathering, boiling and marketing many Canadian homes have fresh maple syrup on their tables, a distinctively Canadian product. Here an Esquesing township farmer collects sap to take to the boiling pans. This picture was taken in March, at the height of the run.

In normal years one out of four manufacturing companies in Canada operates at a loss.

Books In Review

A NIGHT TO REMEMBER

These were the things they remembered, that night.

John Jacob Astor said, "We are safer here."

"You cannot sink this boat."

"We've struck an iceberg!"

"I'll see you later."

"Be brave."

Of course, it was the night the "unsinkable" Titanic struck an iceberg and sank. Of 2,207 on board, only 705 survived.

The book includes anecdotes that are now famous.

Benjamin Guggenheim and his valet, dressed in evening clothes. "We've dressed in our best and are prepared to go down like gentlemen," he said.

And many others, sensitive, heartbreaking, heroic. Some other legends — like the band playing Nearer My God to Thee — were proven fanciful.

The book also has many pictures —photographs of scribbled messages, the survivors in the boats, the ship in its proud days, happy moments of the voyage.

The lyrics for the patriotic song O Canada were written by the son of a Quebec blacksmith who ran away from home to live in the United States.

Festival Winners Guests of I.O.D.E.

The May meeting of the Duke of Devonshire chapter I.O.D.E. was held at the home of Mrs. Joseph Jany, with the regent, Mrs. J. Whitham, presiding. Six participants in the recent North Halton Music Festival gave a delightful musical program preceding the business meeting. They were Heather and Janice Leyland, Gwen Bean, Helen and Bernie Benton and Jon Hurst, accompanied by Helen Landsborough.

The chapter's delegate to the Provincial chapter annual meeting in Hamilton in April, Mrs. Robert Buckner, gave a splendid account of the convention. Mrs. B. Mowat told the members about the closing banquet and how much everyone enjoyed the after-dinner speaker.

Refreshments were served by the hostesses for the evening, Mrs. Wilfred Coles, Mrs. Ken Blow and Mrs. Les Davies.

This is Rubbish

You mave have the makings of a real dangerous fire in your home simply because you don't know what rubbish is. Rubbish is fuel that fire needs—and you're gambling with fire if your home is filled with such rubbish as lamp shades, old mattresses, cast off clothing and furniture, loosely piled newspapers, dirty rags, old toys. If you want to look safe, feel safe, be safe from fire—clean up!