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MAPLE SYRUP

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Maple Syrup Fact Sheet

Where is maple syrup produced?

Maple syrup is produced only in northeastern North America, the region in which the sugar maple is found in large numbers. This area has the ideal weather conditions in the early spring for sap flow.

The top four producers are Quebec, Vermont, New York and Ontario in that order. These four produce about 90% of the world's syrup. Canada produces about 70%.

How do you identify a sugar maple?

Sugar maples have opposite branching as opposed to alternate. (i.e. twigs and buds are opposite each other)



Maple bark is grayish brown and splits vertically on the trunk breaking away on one side of the split.

Since there are no leaves on the tree during maple syrup season these are the clues to look for.



What makes the sap flow?

During warm periods when temperatures rise above freezing, pressure develops in the tree. This pressure causes the sap to flow out of the tree through a wound or tap hole. During cooler periods when temperatures fall below freezing, suction develops, drawing water into the tree. This replenishes the sap in the tree, allowing it to flow again during the next warm period. These conditions occur in the early spring when we experience days above 0° and nights below 0°. Ideal conditions for sap flow are -4° at night and +4° during the day.

When can a tree be tapped?

A tree is approximately 30 to 40 years old before it is tapped. That is a tree somewhere between 85 to 95 centimeters in circumference.

85 to 95 centimeters in circumference = 1 tap

160 to 200 centimeters in circumference = 2 taps

Over 200 centimeters in circumference = 3 taps

Current recommendations do not suggest more than 3 taps. Each tap on average yields about 40 liters of sap.

What are the different methods for collecting sap?

Sap is collected using buckets or tubing. Flow through tubing can be by gravity or enhanced through the use of vacuum pump.

What process causes sap to become syrup?

During evaporation, sap is concentrated to the desired sugar content and the distinctive maple color and flavour also develop.

Chemical changes that occur during heating cause the color and flavour to develop. Boiled sap becomes syrup at 104 °C.

A more accurate reading can be taken with a refractometer, which measures the sugar content of the syrup. A reading between 66% and 67.5% is required.

When does maple syrup season end?

The harvest season ends with the arrival of warm spring nights and bud development in the trees. The buds swell in preparation to bloom into leaves. Sap collected at this time has an awful smell when boiled and the syrup has an off flavour.

