

Where Does Maple Syrup Come From?

We use trees for many things. They give us shade from the sun, protection from the wind, and they hold our soil in place. When we cut them down, we get lumber to build many things and to make lots of products like furniture and clothespins.

Wood from trees was once the main source of heat for everybody. Today, many people still heat their homes with firewood. Some trees give us fruit. Some give us nuts. All of them produce oxygen for us to breathe.

One of the sweetest things we get from a tree is maple syrup. There is more than one kind of maple tree. There are black, red, and silver maples. But the best syrup comes from the “sugar maple”. Sugar maple is also called “rock” maple or “hard” maple. The scientific name is *Acer saccharum*.

How Was Maple Syrup Discovered?

We don't know for sure, but there is an old legend about a Native American Indian chief and his wife. The legend says that the chief struck his tomahawk into a sugar maple tree to store it for the night. The tomahawk held, but it made a gash in the tree.

The next day, his wife went to the tree to get a water bucket she had left there the day before. Picking it up, she saw a clear liquid in the bucket. The wife thought it was plain water and used it to boil meat for the evening meal.

But the liquid was not just water—it was sap from the maple tree! The sap had leaked out of the gash the tomahawk had made. It gave off such a pleasing odor while cooking, and made the meat so delicious, that it was used from that time on to flavor foods.

How Do We Get Maple Syrup Today?

Different types of maple trees grow in other places in the world, but the sugar maple only grows in the northern sections of the United States and Canada. Maple syrup is made by collecting sap from these sugar maple trees and cooking most of the water out. After that, it is filtered, graded, packaged, and...eaten! This all sounds pretty easy, but it is trickier than you might think.

First, there are only 4-6 weeks out of the year that the best tree sap “runs.” A “run” means when the roots are sending sap up through the tree during the day to feed new buds forming, and then drawing it back down to the roots at night. This happens when winter is almost over and the new buds are getting ready to grow. The weather must be just right for the sap to “run.” The days must be above freezing and the nights must be below freezing.

Where Does Maple Syrup Come From? (Cont'd)

To get the sap, a hole must be drilled into the tree. It is usually about 1-½ inches deep. If the hole is drilled carefully, the tree is not harmed. It simply grows new bark over the hole after sugaring. Each year, the hole must be drilled in a new place. Some trees are big enough to have more than one hole drilled at a time. A sugar maple should be at least 50 years old before being drilled for syrup.

After the hole is drilled, a wooden or metal spout is snugly slid into the hole. This is called "tapping." When the weather is perfect, and the tree is "running," some of the sap will enter the spout and come out of the tree. Small operations hang buckets under the spouts to collect the sap. Then they carry the buckets to a big storage tank. Bigger sugar farms now use plastic pipelines that connect all the trees into a main line, which brings the sap into a storage tank.

However it gets into the storage tank, the next step is to cook the sap until most of the water is gone and delicious maple syrup is all that is left! The storage tanks are set up in or near the "sugar house." This is where the sap will be cooked and filtered.

The Sugar House

The "sugar house" is an interesting place. Some sap is being stored in large stainless steel tanks; some is being boiled in big evaporator trays. Evaporator trays are large shallow trays that sap works its way through while slowly being boiled down. The sap keeps moving through channels in the trays to keep it from burning. All the while, the water in the sap is evaporating. As the sap nears the end of the evaporator tray, it is really syrup. More sap is added to the tray as the finished syrup is drained off. A fire under the trays keeps the temperature up. Gas or oil is often used now, but firewood has always been the fuel of old syrup makers. The sap must boil a long time, and the steam from the boiling sap smells great!

Today, there are several instruments used to help make maple syrup. Some test the water and sugar content, some check the heat levels, and some keep track of exactly when the syrup is ready. The syrup must be at least 66% sugar to be good maple syrup.

Name _____

Date _____

Where Does Maple Syrup Come From? (Cont'd)

Get Out The Ice Cream!

Once the sap is the perfect density for syrup, the syrup is filtered and graded. Filtering is a process of pouring the syrup through some type of mesh such as paper or cloth filters. This removes any tiny particles of dirt or bugs. Grading maple syrup is easy. You simply hold it up to the light and see how dark it is—the lighter the color, the finer the taste.

It takes a lot of sap to make maple syrup. Pure sap from the trees is 98% water and only 2% sugar. Approximately 40 liters of sap will boil down to produce about 1 liter of syrup! A tablespoon of syrup on a freshly packed snow cone is enough to make you groan in pleasure.

Name _____

Date _____

Where Does Maple Syrup Come From? Questions

Section I – True or False?

1. Maple syrup comes from the sugar cane grown in fields.

2. We get maple syrup when we squeeze the leaves of the maple tree.

3. The sap right from the maple tree is thick and mostly sugar.

4. Maple sap can be drawn from maple trees at any time.

5. The same hole is used over and over again to get sap out of the tree.

Section II -- Multiple Choice

1. A sugar maple tree should be at least _____ years old before being drilled.
 - a. 10
 - b. 15
 - c. 25
 - d. 50
2. A wooden or metal _____ is fitted into the drilled hole in the tree.
 - a. Spoon
 - b. Screw
 - c. Spout
 - d. Bucket
3. Some maple syrup companies use _____ instead of buckets to collect syrup.
 - a. Trucks
 - b. Plastic pipes
 - c. Jugs
 - d. Plastic bags
4. After collecting the sap into tanks, it is then _____ until it becomes syrup.
 - a. Filtered
 - b. Boiled
 - c. Frozen
 - d. Poured into jars

Name _____

Date _____

Where Does Maple Syrup Come From? Answers

Section I True or False

All answers are FALSE

Section II Multiple Choice

1. D
2. C
3. B
4. B