

MAPLE - TODAY'S STORY

Maple sugaring today has its roots in the methods learned from the Native American Indians by the early settlers. Much of today's sugaring is the same as it was three hundred years ago. The syrup is still made from the sap of the sugar maple. The sap is boiled over a heat source of some type until the proper amount of water has been removed. The biggest changes from old methods are in the ways that the sap is gathered from the trees. Now, instead of hanging thousands of buckets on the trees, most sugarmakers use a system of approved food-grade plastic tubing that connects all the trees to larger pipelines that eventually run downhill to a sap storage tank. In this way, as the sap runs out of the tree, it will flow eventually into a tank in one place, and the sugarmaker can collect sap from many trees at one central location. With the old bucket method it required much more time and labor to go from tree to tree to gather the sap.

The great amount of time and labor involved in maple syrup manufacturing has not diminished much over the years. Although modern boiling equipment makes the process somewhat faster and the use of tubing instead of buckets saves time in the woods, the process is still very labor intensive, and involves much hard work. All the equipment must be set up every winter, and taken down, cleaned, and put away each spring. Work has to be done in the woods, fallen trees have to be cleared out of the way, damage to the tubing systems must be repaired. Squirrels and other small animals are notorious for chewing holes in the tubing. Much of the work in the woods must be done during the cold weather, and often on snowshoes in deep snow. The sugarmaker can never predict ahead of time what kind of crop he will have. The maple business is, after all, farming. Just as any field crop farmer is dependent on the weather, so is the maple farmer. The catch is that the maple crop is just about fully dependent on the weather that occurs in a 5-6 week period in early spring.

Once the sap starts to flow, it must be collected and boiled as soon as possible. Because sap has sugar in it, sap can spoil if not processed quickly. The sugarmaker must be prepared to gather his sap quickly and regularly. He must boil it down into maple syrup right away. Sometimes this requires boiling many long hours into the night. Some sugarmakers use a new technology called reverse osmosis to speed up their work. This process is used before the sap is boiled. By passing the sap through a series of special membranes, much of the water in the sap can be separated from the sugar, thereby giving the sugarmaker a much more concentrated sap to boil in his evaporator. This saves both boiling time and the amount of fuel required to make the maple syrup.

As soon as the syrup is made, it must be filtered to remove what is called "sugar sand", the gritty mineral deposits that occur naturally and precipitate out when the sap is boiled. After filtering, the syrup is graded according to the Federal standards for color and taste, and then is canned or bottled while still at least 180 degrees. At this point the sugarmaker can be proud of his skills as an accomplished sugarmaker, as his finished product is a sure sign of much hard work leading to a job well done.

TEACHER NOTE: The student may be assigned the following as a reading project. The student should complete the answers to the questions. A teacher may read this story to their class or ask different students to read the paragraphs. After reading aloud, students can provide a written or verbal answers to the questions.

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QUESTIONS ABOUT THE STORY

NAME _____

Answer the following questions after reading, Maple - Today's Story.

1. Who taught the early settlers the process of maple sugaring?

2. The early settlers used buckets to collect sap from the trees. How do today's farmers collect sap?

3. Is maple sugar production hard work? _____
Can you describe some of the chores of the farmer? _____

4. What is one of the most important influences on maple sugar production?

5. What happens if sap is not boiled soon after collection? _____

6. A. Is there a method to reduce the time required for boiling sap? _____
B. What is this process called? _____
C. What are one of the side benefits to this process? _____

7. After the syrup is filtered, it must be graded. What are the two factors which influence the grade of syrup?
A. _____
B. _____