

Liquid Sunshine



By PPL Montour Preserve Naturalist - Jon Beam
Photos compliments of PPL Montour Preserve & Jon Beam

Nothing compares to pure maple syrup. It is unique in many ways. Maple syrup production depends on trees, uses traditional methods and produces a product with its own special flavor. In fact, maple syrup is a bit of liquid sunshine, a reasonable assessment of this amber liquid.

Like all green plants, **sugar maple trees** carry on photosynthesis during warmer weather. Their leaves, like tiny solar collectors, use the sun's energy to convert carbon dioxide and water into sugar. Some of this sugar powers growth in the tree. The remainder is stored for later use. So when maple trees become dormant during cold weather, the sugars remain in storage until temperatures moderate once again.

Native Americans learned that sap flow in maple trees begins early in the year. They were gathering maple sap and boiling it to make sugar and syrup when the French fur trappers arrived. How Native Americans discovered the secret of using maple sap is a mystery, but the tradition of maple sugaring continues today. Maple sugaring takes place each year in many sugar groves throughout the northeast. Right here in north central Pennsylvania, PPL's Montour Environmental Preserve offers educational programs and demonstrations about the maple sugaring process every year in **late February and early March**.



Maple sugaring depends on both season and weather. Although maple sap can flow during a brief January thaw, it becomes more dependable and frequent toward the end of winter. As the sun rises higher in the sky and days get longer, sugar makers prepare for warmer days and **sugaring season** by tapping maple trees. Drilling a small hole 2" deep into the trunk of the tree, inserting a small metal tube called a spile, and hanging a bucket to catch the dripping sap is standard procedure. Then the wait begins. On nights and days with freezing temperatures sap does not flow, but once the sun nudges temperatures into the 40s, the sound of sap dripping into buckets echoes through a maple grove.

Soon the **sound of dripping sap** changes to that of a crackling fire and the bubbling of boiling sap. Clouds of water vapor rise from the flat evaporator pan. As the sugar concentrates, the distinctive odor of maple syrup fills the air around the sugar house. After a long day of boiling the once clear sap is transformed into a golden-brown syrup.

Pure maple syrup poured over steaming hot pancakes or waffles offers a bit of liquid sunshine, stored by maple trees and converted into a sweet syrup through an ancient tradition. From the sun through maple trees to our plate, the sweet energy in maple syrup is a great way to start a day.

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