

March 2008

Tree Treasures The Story of Sap



If you spend much time around the Nature Center this month, it's hard not to notice that it's Maple Syrup season. Maple trees may be unique in the sugar content of their sap, but **ALL TREES HAVE SAP!**

Trees depend on the energy they store during the winter months to get them started in the spring. Without leaves, trees can't make energy, and without energy, trees can't make leaves. Luckily trees make enough extra energy in the summer that they can store some for the following spring.

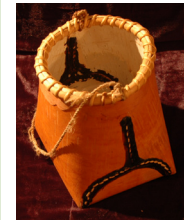
In the fall, trees begin converting their energy in the form of *sucrose*, a sugar, into starches. All winter long the starches are stored in the tree's tissues. In the spring, when temperatures are between 40 and 45 degrees Fahrenheit, enzymes in the tree begin transforming those starches back to *sucrose*, which then dissolves in the tree's sap and travels to all parts of the tree.



It will probably be several weeks before the buds begin to swell, but the process of breaking winter dormancy begins when the sap starts to flow.

Nature Nuggets

Pines also have sap, but the sticky residue we find on wounded branches is actually a non-water soluble resin produced in resin ducts.



When mixed with charcoal, this resin can be used to seal seams in birchbark containers.

Maple Syrup can be produced from all Maple species including Boxelder, Silver Maples, and Red Maples. **Sugar Maples** and **Black Maples** have the highest sugar content and are used most often.

As you walk through the woods check broken branches to see if a **sapsicle** has formed where sap has dripped from the wound and frozen. It's possible to find sapsicles on all species of trees - because all trees have sap!



Visit the Information Desk for program information.