Wounding of *B. papyrifera* following tapping for syrup production

Abstract:

Betula papyrifera is tapped for syrup production in some parts of the country. Although not utilized to a great extent in the northeast United States, it is an abundant tree in some areas of that region. The sap collected is processed in a similar fashion as sugar maple sap to create a syrup that can be sold at a high price. Tapping results in the shutoff of sap flow below and above the taphole to a certain depth and width. If tapping is done on the same trees in later years these unproductive areas must be avoided. With *B. papyrifera,* however, the extent of this wounding is not well known. This experiment looks at how *B. papyrifera* reacts to the stress of taps intended for sap collection and syrup production. Research was done within the forest managed by the UVM Proctor Maple Research Center. Ten trees were tapped with a single tap before the sugaring season in the spring. Each tap was removed at the end of the season and trees were cut the following fall. Each tree was cut into two inch cookies above and below the taphole. Data were taken through visual analysis and measurement of staining caused by the drilling of tapholes. Data are currently being compiled and analyzed. The results of this research will allow sugar producers to know how *B. papyrifera* reacts to tapping and what areas of the tree to avoid while tapping in consecutive years.