

Tapping the Bigleaf Maple on Vancouver Island: Challenges and Opportunities

Tapping bigleaf maple for syrup, wine and other value-added food production has become an increasingly popular activity on Vancouver Island. Thanks in part to an Agroforestry Initiative supported project in partnership with Gary Backlund of Backlund's Backwoods which ran from 2003 to 2007, there is a growing community of interested landowners on Vancouver Island and this agroforestry practice has potential for further expansion. Currently there is little research to assess the socio-economic viability of expanding the tapping industry. Moreover, the bigleaf maple resource is often dispersed among multiple landowners and therefore land use agreements must be made to secure access and expand tapping enterprises. Additional research and increased awareness will facilitate the growth of the bigleaf maple tapping industry as will developing partnerships and collaborating with a variety of different landowners. To meet these goals, and with funding support from **BC Agroforestry Industry Development Initiative**, Deirdre Bruce, a **University of Victoria** graduate student, is leading research and development support to help advance this emerging industry with university, government, industry and First Nations partners.

Deirdre's work employs a 'hands-on', participatory approach to assess the challenges and opportunities of incorporating an agroforestry system for the bigleaf maple on Vancouver Island. This project is being developed collaboratively with the key partner, **Glenora Farms** in the Cowichan valley and multiple landowners in Port Alberni, Cowichan Valley and Ladysmith. Deirdre is assisting with setting up a demonstration sugar shack, organizing and managing the bigleaf maple tapping and collection, and sharing information and knowledge to assist with evaporating, finishing and bottling syrup. Field work commenced in October 2006 with a survey of potential tapping areas in Glenora, Ladysmith and Port Alberni to assess access and ownership. Where suitable sites were found, landowners were approached to assess their willingness to participate in the research project. Non-exclusive agreements were formed with the private forest company, **Island Timberlands**, in order to tap trees in Glenora and Ladysmith. In addition, the **Alberni Valley Chamber of Commerce**, the **Tseshah First Nation** and the **Hupacasath** are participating in the research. Tapping for the project commenced with the maple sap run beginning in early December 2006 and was completed in early March of 2007.

A knowledge gap that has restricted the productivity of the West Coast maple tapping industry is the predictability of sap flow. Sap flow is highly dynamic from site-to-site and this project is gathering baseline data that will help to understand the factors that affect daily and seasonal variability. Deirdre has organized a system to collect data on daily sap flow (overall volume of sap per spile per site) to determine differences between microsites (as affected by soils, topography and surrounding vegetation complex). In addition to her own field work, member of the Vancouver Island "Sapsucker" community have been encouraged to collect data on their time spent in the sugarbush and sap flow volumes, in order to improve the scope of the data set.

Bigleaf maple is currently undervalued in the forest industry and there has been little incentive to manage for the multiple values of this tree species. In fact, bigleaf maples in conventional forest management are often treated as a pest species and chemical treatments are sometimes used to eliminate them from mixed stands. It is known that the bigleaf maple has extensive environmental values and provides habitat for a multitude of different lichens, mosses and forest dependent species. Therefore, conserving bigleaf maple for sugarbush production promotes an increased level of environmental stewardship as it sustains the many values of this native deciduous tree species.

Looking to the future development of this cottage industry, exploratory work is being conducted into the value-added potential of the bigleaf maple syrup by making connections with microbreweries in the Cowichan Valley and the Greater Victoria area. In consultation with brew masters, Deirdre will determine the suitability of the maple sap for beer making, specifically by assessing the optimal sugar content for a marketable product and its ability to ferment. Chris Gress, a brew master at the **Craig Street Brew Pub**, is interested in learning more about the viability of using bigleaf maple syrup for making beer and other regional microbreweries that may be interested in developing a unique local beer will be identified. This project will also outline the process of certifying the bigleaf maple syrup as an “organic” food product and will determine its eligibility on the international “slow food” list. All of these steps are key to the growth and expansion of this potential industry.

Deirdre received a Bachelor of Science from the Natural Resource Conservation program at the University of British Columbia. She is registered as a ‘Forester In Training’ with the Association of BC Professional Foresters and has been working in the forest industry on Vancouver Island for the past 5 years. She is currently pursuing her Master of Science through the University of Victoria with Dr. Dan Smith, head of the dendrochronology lab as her supervisor. Her graduate work is being co-supervised with Dr. Bill Wagner at the **Pacific Forestry Centre**. Dr. Wagner has extensive experience working with First Nations and on community based projects and will be actively consulting with Deirdre throughout the project. In addition to her work experience and studies in Victoria, Deirdre has gained insights into the industry during a Pacific Forestry Centre / University of Victoria sponsored trip to Ontario last year. The visit provided a first-hand opportunity to see businesses in the well-established sugar maple tapping industry and meet with scientists who are actively involved with the maple syrup production in Ontario.

In addition to assistance from Lawrence Lampson (Glenora Farms in the Cowichan Valley), Christopher Law of **Sproat Lake Forestry Services Ltd** is also providing support for this project. Sproat Lake Forestry Services, a forestry contracting company based in the Alberni Valley, is interested in the development of innovative forestry practices on Vancouver Island. It is also hoped that, through fostering greater awareness of bigleaf maple tapping potential, new agreements will be made to facilitate tapping with a variety of other landowners including First Nations, BC Timber Sales (Ministry of Forests and Range) and private forest landowners.

This project attempts to show that innovation and agroforestry can help to diversify economies in forest-dependent communities throughout Vancouver Island and the surrounding coastal region. Deirdre is working in partnership with a wide range of agroforestry practitioners, industry organizations, educational institutes and other interested groups. By increasing awareness and promoting of the benefits of forest farming through these groups it is hoped the compatible management of multiple forest values will increase to the benefit of all. It is also Deirdre’s desire that by empowering locals to be directly involved in the maple sap research, growth and participation in maple tapping will continue well beyond the research project.

For more information on this project, please contact **Deirdre Bruce**: deidreb@uvic.ca