

Agroforestry *Update*

December 2006

*British Columbia
Agroforestry
Industry
Development
Initiative*

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Jayendee Farms Demonstrate Hybrid Poplar Agroforestry

John Doppenberg and family own and operate **Jayendee Farms**, 20 acres in Abbotsford with a 300 sow, farrow-to-finish hog operation with approximately 2,500 animals on the farm. In order to utilize manure generated from the hog operation, 17 acres of the farm was planted to a short-rotation, intensive-culture hybrid poplar (*Populus* spp.) plantation in 2002. Hybrid poplars thrive in a nutrient-rich environment and can absorb and utilize high levels of soil nutrients. Although still experimental and exploratory, given the nutrient utilizing qualities of hybrid poplars they may be good candidates for improving manure management through agroforestry in intensively farmed regions such as the Fraser Valley.

The poplars at Jayendee are now in the beginning of the fifth growing season in what is expected to be an 8- to 12-year rotation to harvest. The trees are planted at a 14-

foot spacing and the lower canopy has reached a height that allows for the planting of shade-tolerant plants in the understory. So, with diversification and sustainability of their operation in mind, Jayendee Farms, in partnership with the **Abbotsford Soil Conservation Association** and funding assistance from the **BC Agroforestry Industry Development Initiative**, is testing additional agroforestry options by introducing landscape and floral crops in the poplar alleys. In addition to demonstrating the sustainable utilization of hog manure with an agroforestry system, their new venture will determine optimum plant species for integration in a poplar plantation fertilized with hog manure, and will provide education to other producers through tours and awareness materials.

A key support and delivery partner in this demonstration is the **Abbotsford Soil Conservation Association**

(ASCA). ASCA is a not-for-profit society “directed by farmers, for farmers and the community”. The Association uses a co-operative approach in the development of sustainable land stewardship strategies that offer economical and effective solutions to issues related to soil conservation, water quality, and nutrient management. ASCA’s goals are to promote the conservation of agricultural land in the City of Abbotsford for the benefit of present and future generations, and the long-term management of soil and water resources to enhance the productivity and profitability of agricultural lands. ASCA works with farmers across many sectors by undertaking education and outreach and delivering projects and programs in the Fraser Valley such as the **Greenhouse Gas Mitigation Program** and

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Alleycropping in the Fraser Valley *continued*

“The poplars at Jayendee are now in the beginning of the fifth growing season in what is expected to be an 8- to 12-year rotation to harvest.”

the BC Environmental Farm Plan Program. More information on ASCA and their projects can be found on their website:

www.abbotsfordsoilconservation.com.

Planting of the alley crops at Jayendee is expected to begin in the fall of 2006 with harvesting of floral stock over the three subsequent years. The demonstration site will cover approximately 140-ft by 140 ft (10 by 10 tree rows). Alley cropping will take place along the rows of poplar to allow for access of manure spreading equipment in the row centres. This will also allow for planting of a greater variety of plants. Based on initial consultations with members of the BC Landscape and Nursery Association, several plant species were chosen for testing including red osier dogwood (*Cornus sericea* and *C. stolonifera*) and Oregon grape (*Mahonia nervosa*), shrubs which are expected to thrive in the low light and high nutrient conditions. The remaining interior rows will be planted with shade-loving ferns such as northern maidenhair fern, lady fern and deer fern. The plants chosen have high value in

floral and landscape markets and are expected to be readily marketable. In order to estimate the effects of manure application the floral and landscape stock will also be intercropped with poplars that receive no supplemental fertilization. A similar control for the effects of shade is planned, with an area of floral and landscape plants grown without trees. Harvests of the alley crops are expected to begin in the growing season following planting and will continue until harvest of the hybrid poplars. The shrub/fern crops will be harvested by pruning or selective cutting rather than whole-plant removal. As the plants get bigger therefore, the total annual production is expected to increase over the duration of the project.

This project is expected to be completed at the early range of the poplar rotation of 8 to 12 years, with floral species selection and planting density to be reassessed at the end of the project in order to plan for future planting schemes. Through the life of the demonstration, it will develop valuable information to help hog and other intensive livestock

operators assess the potential for agroforestry to meet their production and conservation goals. Some of the expected key outputs include:

- Development of a selection of floral and landscape species suitable for alley cropping with hybrid poplar with guidance from representatives from the BC Landscape and Nursery Association and BC Ministry of Agriculture and Lands;
- Measurement of the nutrient content of soil, foliage, bark, wood, and roots in relation to manure applied in order to estimate the whole-farm nutrient balance and the effects of agroforestry practices on the same;
- Identification of key distributors and buyers of floral and landscape products in the Fraser Valley.

In addition to the agroforestry system on the farm, the Doppenbergs are also establishing a composting facility based on the relatively new technology of biodrying. This

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Alleycropping in the Fraser Valley *concluded*

method utilizes the potential energy in hog manure to remove moisture and stabilize nutrients at a relatively faster rate than conventional composting methods. Research has shown that biodrying can significantly reduce the water in the manure and because it is a composting process there is no methane produced. Moreover, there is also opportunity to separate ammonium from carbon, thus reducing the

amount of nitrous oxide emissions. This method of composting is expected to produce a high quality fertilizer product after composting which may be tested on agroforestry system at a future date.

The agroforestry demonstration, along with the biodrying project, will provide an opportunity to increase interest in fully integrated sustainable farming systems. ASCA plans to produce fact sheets outlining the pro-

ject outcomes and to increase awareness of the benefits of agroforestry. The fact sheets will highlight selected floral and landscape crops, planting schemes, yields and the whole-farm nutrient balance and will be targeted at intensive livestock producers and agroforestry practitioners, but will be relevant to others in which agroforestry systems could fit into their land management plans.

For more information on this project, please contact:

Jayna Houston, Coordinator
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Conservation Association:

Jayna@AbbotsfordSoilConservation.com



Five-year-old hybrid poplar at Jayendee Farm show the benefits of integrating livestock nutrient management and agroforestry in Abbotsford.

Announcements and Upcoming Events

Non-Timber Forest Product Expos

Royal Roads University with support from Forestry Innovation Investment Ltd. is pleased to sponsor two Conferences and Business Expos for Buyers and Sellers of Non - Timber Forest Products:

Victoria

February 3-5, 2007
Royal Roads University, Victoria, BC

and

Quesnel

March 3-5, 2007
Quesnel and District Arts and Recreation Centre, Quesnel, BC

Are you a woodlot owner, rancher or farmer eager to diversify your land base, an entrepreneur looking for a new and exciting business idea, or an existing non-timber forest product business owner looking for ways to develop and grow your business?

Non-timber forest products play an increasingly important role in rural economic development as domestic and international consumers become aware of the rich variety of goods that forests have to offer - from natural health products, wild foods,

native plants and florals to crafts, First Nations art, cultural and eco-experiences.

These events offer a range of exciting and informative workshops on key business opportunities in the NTFP sector, as well as a business expo where attendees can explore and purchase goods from local NTFP businesses. The event will facilitate the creation of an NTFP industry association, and will also explore ways to strengthen and support the development of the sector over all. For more information please visit:

www.royalroads.net/cntr/buybcwild/

or call:

Melanie Sommerville at 250-391-2600 ext. 4348.

Agroforestry Session at the Horticulture Growers Short Course, Pacific Agriculture Show, Feb. 16, 2007 **in Abbotsford**. The 2007 session will be chaired by Dave Trotter, of the BC Ministry of Agriculture and Lands. Presentations will include:

Agroforestry Initiative - Current Projects and Funding Opportunities
George Powell, Agro-

forestry Industry Development Initiative.

Working Beneath the Trees: the Centre for Non-Timber Resources. Tim Brigham, Royal Roads University

Hawthorn Agroforestry Demonstration Farm Trial: Community Group to Medicinal Production
Jeanette Lee, West Kootenay Herb Grower's Cooperative.

Comparative Analysis between Native BC and European Hawthorn Species. Paula Brown, Health Sciences, BCIT.

Hybrid Poplar / Agroforestry Intercropping in the Fraser Valley. Jayna Houston, Abbotsford Soil Conservation Association and John Doppenberg, Jaydee Farm.

Some BC Experiences with Hybrid Poplars, Native and Exotic Birches and Black Walnut. Michael Carlson, Research Branch, Ministry of Forests and Range.

For more information or to register please visit www.agricultureshow.net

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Announcements and Upcoming Events *continued*

Birch Tapping and Syrup Production Training

April 2007, Quesnel, BC

Farmers, rural land owners, woodlot managers, or anyone interested in a new small business opportunity or small-scale food production, are invited to participate in this unique training opportunity. A one-day workshop, followed by a second day of production demonstration and training will provide participants with:

- An overview and on-farm demonstration of birch tapping and sap collection;
- An overview and on-farm demonstration of birch syrup processing from the raw sap;
- Information on relevant processing, food safety and labelling regulations; and,
- Information and training on markets and marketing.

Additional workshop details and registration forms will be available in January through the Agroforestry Initiative website (www.woodlot.bc.ca/agroforestry/) or through the

Agroforestry Initiative mailing list (subscription information on page 8).

Due to the 'hands-on' nature of this training, registration will be capped. For more information or to reserve a space in the workshop, please contact the Quesnel Community and Economic Development Corporation at (250) 992-3522 or email them at mail@quesnelcorp.com

10th North American Agroforestry Conference

Opportunit s  conomiques et b n fices environnementaux de l'agroforesterie / Economic Opportunities and Environmental Benefits from Agroforestry. Plan to spend part of your next summer in *la Belle Province*. The 10th North American Agroforestry Conference will be held **June 10-13, 2007 at Universit  Laval, in Qu bec City, PQ.**

The intent of the conference is to stimulate the development and the adoption of sustainable rural land management practices centered on the integration of trees into the landscape. Riparian buffers, windbreaks and shelter-belts, silvopastoral systems, intercropping

systems, and forest farming systems will be the main practices discussed during the conference. Target participants belong to all spheres of the advising, teaching and research fields, whether with private companies, advisory groups, municipalities, government departments, educational institutions or research centres specializing in the fields of agriculture, forestry, environment and planning.

The conference will include two days of talks, a scientific poster session and a field-day in La Pocati re, Qu bec. Other pre- or post-conference field trips are also planned.

The conference will feature oral and poster presentations that will provide an update on current and emerging knowledge on temperate agroforestry practices focusing on practical examples of agroforestry practices and on technology transfers to producers. Presentations will also address the socio-economic, political and environmental aspects of agroforestry.

Online registration has begun. For more information please visit the conference web site: www.agrofor2007.ca or email: info@agrofor2007.ca

A reminder that next **deadline** for letters of intent and applications to the British Columbia Agroforestry Industry Development Initiative is **Thursday, February 15, 2007**

Direct Marketing Workshops and Convention

Marketing Caravan Workshop

"FARMED" (the North Cariboo Agricultural Marketing Association) is pleased to announce that it will host a Canada Farm Business Management Council (CFBMC) "Marketing Caravan" workshop in **Quesnel, Friday, March 16, 2007**, one of only five such workshops to be delivered across Canada in 2007.

CFBMC believes that accessible and affordable education is key to introducing more Canadian farmers to the benefits of value added farm operations. The Marketing Caravan provides a cross-Canada traveling series of one-day workshops and networking opportunities, bringing farmers together with North America's finest innovative agriculture experts to discuss product development, and marketing and selling of quality value-added farm products and experiences. The workshop objective is to elevate the economic viability of small farms by bringing new ideas together with professional development skill, to farm operators in more remote areas of Canada. The workshop will be filled with the most pertinent, leading edge information

management, value-added, farmers' market and on-farm retail, niche-market development and agri-tourism.

CFBMC has partnered with the North American Direct Marketing Association (NAFDMA) to facilitate this series of five Marketing Caravans across Canada in 2007. These Workshops will present highlights of the multi-day NAFDMA 2007 Conference ("Grow West"), the industry's premiere event, synthesized down into a fast-paced seminar. The Marketing Caravan will feature internationally renowned speakers Charlie Touchette and Brent Warner.

FARMED (*Farming - Agriculture - Rural - Marketing - Eco - Diversification*) is a producer led organization dedicated to diversification of agriculture and the products and experiences associated with rural living in the North Cariboo.

For more information, or to register, please contact Heloise Dixon-Warren, president of the North Cariboo Agricultural Marketing Association at: mmfarm@goldcity.net

North American Farm Direct Marketing Conference comes to Canada in 2007

Feb. 12-17, 2007
Hyatt Regency Calgary, AB

Many of the best farm direct marketers in the world will be gathering in Calgary for this convention featuring presentations by Joe Pine, Lori Colborne and Claude-Jean Harel.

Full-Day Workshops

A chance to immerse yourself in a world-class, internationally renowned event and spend a full day with one of the world's most respected retail marketing gurus, Joseph Pine.

Bus Tour

Trained tour guides will lead bus and tour stop discussions on a three-day bus tour. . . Your fellow bus passengers will ask questions as well as share their experiences.

Costs of these events are:

- Conference: \$225
- Workshop: \$250
- Bus tour: \$445

For more information, or to register, please contact Kelly Fuerstenberg:

kelly@whiteloafriidge.com
phone: 413-529-0386

Visit the NAFDMA web site for full convention details: www.nafdma.com

"...leading edge information needed for success today in diversification, business management, value-added, farmers' market and on-farm retail, niche-market development and agri-tourism."

Workshop and Tour Highlight

Agroforestry Development in the Fraser Valley

Agroforestry is taking root in the Fraser Valley. Producers, conservationists, students, consultants and government representatives gathered in Abbotsford on September 29th & 30th for an update on agroforestry development work and a first hand look at opportunities to blend conservation and agricultural production using agroforestry practices.

Workshop highlights included informative presentations and lively

discussions on a variety of agroforestry related topics featuring Dave Trotter, Raman Gill, Mark Robbins and Brent Warner all of the Ministry of Agriculture and Lands, Detmar Schwichtenberg of Fraser-Harrison Smart Growth, Michelle Boshard of Rural Resource Associates and Marlene Best of Page Creek Farm.

The Saturday tour was shadowed by menacing clouds, but the rains held off allowing the group to

enjoy stops to view farm plantings of cedar and high value hardwoods in Agassiz, a hybrid poplar demonstration at Jayendee Farm and the integrated riparian management trials at Page Creek Farm. The tour group also visited Swift Aquaculture, a land-based salmon farm where hybrid poplar have been grown in nutrient rich waste water, and direct marketing of agricultural products in action at the Kirby Store and Farm.

“Workshop highlights included informative presentations on a variety of agroforestry related topics...”



Marlene Best leads Fraser Valley Agroforestry Tour participants through a red osier dogwood (*Cornus stolonifera*) planting at the Page Creek Farm's integrated riparian management demonstration.

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Visit us on the Web

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If you have suggestions for future editions of the *Update* or know of an event that should be included, please let us know.



The Federation of British Columbia Woodlot Associations administers the BC Agroforestry Initiative.



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Agroalimentaire Canada

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