



March 2008



BC Coast Forest Sector Hem-Fir Development Program

Welcome to the first Update Bulletin for the Coastal Fibre (Hemlock and Amabilis Fir) Program

The core objective of this five-year program is to increase the value of the Coastal hem-fir resource and the products manufactured from it. Directing the initiative are representatives from industry, the Coast Forest Products Association, the provincial government and the federal government.

This quarterly bulletin will provide information on projects in the areas of product development and market economics, resource management, and manufacturing techniques as they relate to the hem-fir resource. It will also note developing opportunities for industry to manufacture new types of forest products, such as in the evolving bio-energy and bio-refinery sectors.

The intent is to engage the full capacity within FPInnovations to positively impact the Coastal Forest Sector through on-the-ground application of science and technology from seedling to finished product.

In addition to calling upon its own scientists, technicians, and industry advisors, FPInnovations will also reach out to universities, associations and private sector contractors that are able to make valuable contributions to the success of this project.

We value your input. You are welcome to contact FPInnovations with any comments or suggestions related to this initiative or the contents of this bulletin.

• Product/Markets

Product/Market Development

FPInnovations' Markets & Economics team has completed a search of recent reports relevant to the Hem/Fir product mix. This database will be maintained as an ongoing tool for targeting increased product value opportunities and as a component in a fibre flow analysis tool intended to model value chain options. The first versions of these assets will be available in spring 2008 to further the program work, and as tools for industry and government to apply in managing and developing improved value.

The team is also acting quickly to identify opportunities for implementation and have contracted Pat Demens to work directly with industry to help implement identified product and market opportunities. "This type of assistance is critically important to the success of the BC Coast Initiative," says National Markets & Economics Group Leader, Chris Gaston, "both with short term 'low hanging fruit' opportunities for the industry and longer term opportunities arising from future market and technical research."

• Harvest and Conversion For BC Coast

Flexible Manufacturing & Advanced Planning

Flexible manufacturing and advanced planning systems, may be the way of the future for BC Coastal sawmills. The objective is to produce high quality products with very specific attributes in an efficient and cost-effective manner. Western Sawmilling Program Group Leader, Darrell Wong, and Resource Research Director Marv Clark recently presented to a group of industry representatives, the results of a fact



finding mission to Chile. The mission came about through collaboration with Dr. Thomas Maness at UBC. Wong says Chilean sawmills can process logs ranging in diameter from 10 centimetres to almost one metre and produce a wide array of commodity and high value products without changing set-ups. This is accomplished primarily with scanning capability at almost every breakdown machine in the process. Their planning systems are also very advanced, incorporating short-, medium-, and long-term planning depending on market projections.

Latest in NIR-based On-line Chip Sensing to be applied at Elk Falls

The latest developments in NIR-based on-line chip sensing will be applied at Elk Falls in a nine-month trial to help quantify the impact of incoming fibre supply variability on both pulp processing and final products. Priorities for the trial include quantifying the impact of chip brightness on bleachability, and determining whether incoming chip quality can be correlated with pulp quality.

The technology makes it possible to measure chip quality parameters such as moisture, density, brightness and species in real time, as the chips enter the mill. The new sensor has been ordered, with installation planned for May 2008.

• Bioenergy and Biorefinery

BC Coastal Forest Biomass

BC coastal forest biomass presents a unique challenge for gasification because of the residual chloride content resulting from salt water-floated logs and marine air. Experience with coal gasifiers has shown that even small amounts of chloride in the product gas greatly increase corrosion rates of the equipment used to clean the gas. Experiments are under way at FPInnovations' laboratories to better define the corrosion problem and to make sure that solutions are available for the first coastal biomass gasifier. Results of the preliminary corrosion work will be available by the end of March, and the first test-burn of salt-laden biomass is scheduled for later this spring in the Canmet pilot scale gasifier in Ottawa.

• Resource Characteristics

Log Supply

Portable log scanning, x-ray and acoustic technology has the capacity to enhance the process of identifying/directing logs to the most profitable next step in the value chain. Acoustic technology is being practically applied in other jurisdictions. The BC Coast Program researchers will follow up with Oregon State University and others with the intent of bringing the right technology to the BC Coast industry.

Canadian Wood Fibre Centre To Play Support Role

The Canadian Wood Fibre Centre (CWFC) will play a support role to shorter term projects and possibly take a more direct role in medium to longer term projects. "The CWFC will be involved where its expertise and knowledge can contribute to making better forest management decisions, especially in the work involving regeneration, growing and locating specific forest attributes, and in integration of the value chain," says Raoul Wiat, Director of Operations.

**For more information about this program, please contact spokesperson John Talbot
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FPInnovations brings together Feric, Forintek, Paprican and the Canadian Wood Fibre Centre of Natural Resources Canada, to create the world's largest private, not-for-profit forest research institute. With over 600 employees spread across Canada, FPInnovations unites the individual strengths of each of these internationally recognized forest research and development institutes into a single greater force.

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