



BC Coastal Forest Sector Hem-Fir Initiative

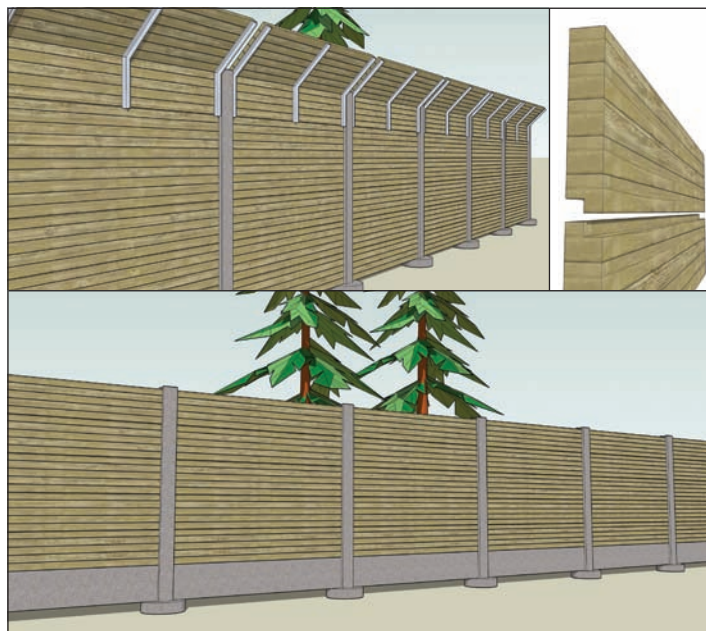
This quarterly bulletin provides up-to-date information on projects related to the five-year BC Coastal (Hemlock and Amabilis Fir) Initiative. It covers the areas of product development and market economics, resource characterization, manufacturing techniques, and opportunities in the evolving bio-energy and bio-refinery sectors. The overall objective of this initiative is to increase the value of the Coastal hem-fir resource and the products manufactured from it.

As the BC Coastal Initiative enters its 3rd calendar year, the project plans are shifting towards medium- and long-term targets. Significant value has already been achieved, while other results are being implemented and are awaiting industry valuation. The project was targeting \$80 million/year in implemented benefit by 2009, of which we have confirmed roughly \$35 million/year in savings with industry. An additional \$30 million/year has been demonstrated in trials and is either being implemented or seriously considered by industry. Ongoing work for the start of Q1 is focusing on planned trials and generating results to augment the direct value of this program to industry.

Sound Abatement

Work continues in identifying opportunities for wood, particularly with reference to the provincial "Wood First" policy. In support of this policy, the products and markets program has sought to identify product areas once held by wood, which subsequently migrated to cement or steel. Highway sound abatement, which is called the million per mile business in the USA, is currently under evaluation because it requires wood at least 3.5 inches thick to meet the necessary decibel reduction levels. This happens to be roughly the same thickness of falldown from Japanese baby square programs.

Upon further investigation with business players, we decided a good first step would be the production of less technically demanding "hybrid" fencing or the blending of two materials into a single fence (i.e. wood and cement) for residential markets. When success of the hybrid system can be proven we will build towards the ultimate goal of having provincial regulators accept wood in sound abatement specifications. FPInnovations is currently in the testing phase, with a local supplier of concrete fencing to install a research fence on FPInnovations' property.



Wood-concrete sound abatement product ideas.

For more information, please contact Chris Gaston at chris.gaston@fpinnovations.ca

FPInnovations would like to thank its industry members, Natural Resources Canada - CFS and the Province of British Columbia MoF&R for their support in this joint federal-provincial-BC industry initiative. The program was developed as a result of the Province's "Competitiveness Report" and is a component of the "Coastal Forest Action Plan".

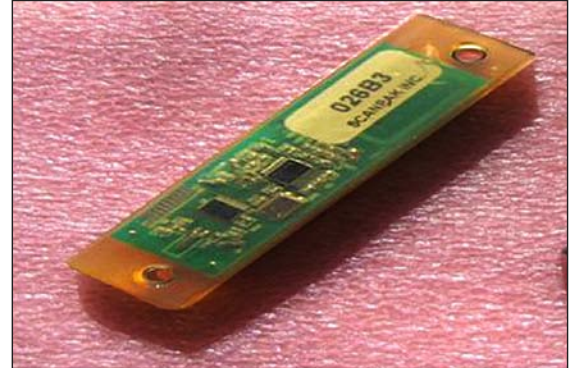
Tree Tracking Review

A crucial question about log-tracking technology is whether to track individual logs or batches of logs. Individual log tracking on the BC coast is mainly about scaling and stumpage payment, while batch tracking is mainly about industrial processes such as inventory management and wood-flow control.

Barcoded tags are commonly used within the current system, but the industry does not currently take full advantage of their capabilities. The industry could shift to using portable scanners for reading the printed barcodes without much difficulty, which could reduce its data-collection costs. However, this system would still require the operator to visit each tag to scan the barcode individually. RFID (radio frequency identification) is a widely used inventory control technology that was investigated to facilitate the data collection. However RFID tags become prohibitively expensive for long range reading and lower cost tags were found to be inadequately robust for the marine environment.

There may be limited benefit for tracking individual logs unless they are of high-value. Once the logs are aggregated into batches, such as after scaling or bundling for water transport, they can be entered into computer systems for tracking through the supply chains. Coastal BC has multiple supply chains, each with multiple sources, destinations, and pathways, thus leading to complex data management problems. Rather than seeking new technologies to track the individual logs, the industry could benefit from managing the existing information effectively in appropriate database systems. Barcode technology is a proven technology that could play a vital role in such a system.

For more information, please contact Ray Krag at ray.krag@fpinnovations.ca



Scanpak passive RFID tag in resin casing.



Bar code with embedded RFID tag.

Sample Load Scaling

In coastal British Columbia, the usual methods for scaling timber are either 100% piece scale, where all logs are measured for volume and grade, or weight scaling, where all loads are weighed and a random sample of the total production is scaled. Both methods have limits: scaling every piece is costly and time consuming; weight scaling requires platform scales which are limited to specific locations.

Sample load scaling is an alternative technique that requires neither 100% piece scaling nor weighing loads on platform scales. Under this method, all loads are counted and random loads are selected to be piece scaled. The average load volume calculated from the sample loads is applied to all loads to derive the total volume. FPInnovations investigated the potential for sample load scaling and together with the industrial partner found benefits in:

- Reduced scaling costs since not all loads were piece scaled.
- Better throughput at the scale site because of less congestion.
- Improved safety because of less congestion.

The cooperating company stated that sample load scaling allowed them to harvest blocks that were not economically feasible with 100% piece scaling. FPInnovations is continuing to pursue these kinds of innovative scaling methods to improve the log delivery costs in Coastal BC.

For more information, please contact Peter Dyson at peter.dyson@fpinnovations.ca

For more information about this program, please contact spokesperson John Talbot at (250) 308-9955 or john.talbot@fpinnovations.ca

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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