

BC Coastal Hem-Fir Initiative – 2012/13

Project Title	Identify and Demonstrate Opportunities to Improve Efficiency of Fibre Delivery
Project Number	H.01
Project Leader	Peter Dyson
Project Team	TBD
Total Budget	\$70,000

Need(s)

This project aims to reduce the high scaling costs on the BC coast through improved technology by demonstrating that laser log scanners operating at sawmills or other industrial sites can meet log-scaling standards acceptable to government, industry, and contractors. The cost-saving potential for scanner scaling is significant; the industrial cooperator from a previous trial estimated the scanner scaling could result in cost savings of \$1 million per year at one sawmill. Similar benefits could be expected at other similar sawmills.

Objectives & Approach

A previous laser scanner trial at sawmill showed the equipment measured top diameters consistently and accurately, however, length and butt diameter measurements were not sufficiently accurate to meet scaling requirements. A second trial is required after the equipment and software is modified by the manufacturer.

Multiple administrative, corporate, and cultural barriers exist and will need to be addressed before government and industry can adopt alternative scaling methods such as scanner scaling. These barriers include items such as acceptance for business-to-business transactions, adapting log-handling processes at harvest sites to accommodate scanner scaling, and establishing standards for measuring devices. This project will document the barriers, engage the interested parties to address the barriers, and propose solutions. Given a successful demonstration of the scanner technology, the next step towards full implementation would be a pilot program of several months duration.

Simple sampling is an alternative scaling method that can eliminate the need for platform scales as used for conventional weigh scaling, but it requires a method to ensure load-size uniformity. On-board weight scales can ensure consistent load sizes, but not all highway trucks currently equipped with scales, and off-highway trucks cannot be fitted with them. The BC Ministry of Forests, Lands and Natural Resource Operations currently accepts physical measurements of the load dimensions as an alternative. The project set out to validate the use of load dimensions for ensuring load-size uniformity, but it was shown to be impractical. A trial to validate physical load measurements using stacked wood scaling method was started in October 2011, but it must continue through a winter/spring/summer transition to show the effect of seasonal density changes. Unlike simple sampling, stacked wood scaling does require uniform size loads, but instead it measures the load dimensions and uses a conversion factor between the volume derived from the dimension measurements and the stick-scaled sample volume.

Benefits

When the scanner technology is implemented, direct costs will be reduced substantially for a portion of the coastal harvest. Secondary benefits such as providing more efficient transportation (avoid dewatering logs only for scaling purposes), strengthening the tax base by improving the health of the industry, and using the technology in other jurisdictions such as the Interior will add to the benefits.

Project Tasks and Outputs – Current fiscal year

Tasks / Outputs	Expected Delivery Date
Complete report on alternate scaling method using load dimensions	September 2012
Conduct scanner scaling trial.	September 2012
Participate in Canadian Standards Association development of national log measurement standards. Promote, develop, and participate in industry/government working group for scanner scaling.	March 2013
Report the barriers and potential solutions to scanner scaling implementation.	March 2013

Status and Major Accomplishments – Previous year

Completed a preliminary report on stacked wood scaling that estimated load volume from load dimensions. The final report will be written after obtaining spring and summer load dimension data from TimberWest.

Initial trial of scanner scaling showed it was more consistent than manual scaling in top diameter and volume (segment method) measurement, but that it needed improvement with log-length and butt diameter measurements.

Participated in Canadian Standards Association work to develop national log measuring standards.

Performance Measures

Key Success Factor	Key Performance Indicator	Target	How the outcome of the Project supports the Program objectives
Ability to accurately scale selected second-growth log grades.	Consistent log-volume calculations.	Meet or exceed the scaling regulations for the trial logs.	Reducing log scaling costs is consistently cited as a necessary step to maintain a competitive coastal forest industry.
Willingness of government and industry to consider change to scaling procedures.	Pilot project to use scanner scaling operationally	Six month pilot project.	Demonstrate scanner scaling can be used operationally.
Usage of simple sampling in coastal BC.	Routine approval by BC Ministry of Forests to use simple sampling in second-growth cutblocks.	20 cutblocks or strata approved for simple sampling in Campbell River District by Mar 2013.	Simple sampling will reduce operating costs and improve the competitiveness of the coastal forest industry.

Communication Strategy for Information Dissemination

Technical report about the scanner trial will be distributed to FPInnovations member companies and partners. Presentation to Operational Issues forum.

Collaboration – Research Partners

- Interfor
- Canadian Standards Association (CSA)
- Ministry of Forests Lands and Natural Resource Operations
- Measurement Canada