BC Coastal Hem-Fir Initiative – 2012/13

Project Title	Maximize Cedar Recovery Value
Project Number	C.04
Project Leader	Ken Byrne
Project Team	Jack MacDonald, Vladimir Strimbu
Total Budget	$70,000

Need(s)

Western red cedar is unique among coastal species because of its high value for certain grades and its tendency to split or break when handled roughly. Longitudinal breakage often occurs during falling, and banding the trees can be used to reduce the breakage frequency and maximize value recovery. However, banding is labour-intensive, and it is unknown whether current techniques are cost-effective. This project will complete fieldwork and analysis started last year to validate the cost-effectiveness of banding the cedar trees before falling.

Logs delivered to conversion facilities must meet the desired characteristics and dimensions, in particular, the desired combinations of quality attributes, log lengths, and minimum diameters. Bucking stems into logs on the cutblock is difficult, especially in steep terrain, and bucking errors can lead to value loss. Quality control standards must be maintained to ensure maximum value recovery. Difficult economic conditions have caused many companies to reduce their quality control programs, and they have been unable to implement the lessons learned from previous studies because of lack of staff. Helping the companies to implement better bucking programs and demonstrating the immediate payback of implementing a quality control program can improve overall log value.

Objectives & Approach

Demonstrate that banding trees before falling can be a cost-effective method to maximize value recovery on steep or uneven ground. A representative cutblock on steep ground with approximately 100 suitable cedar trees was selected and the cedar trees divided into banded and unbanded groups to compare the value recovery and cost benefit of banding. The trees' standing volume was measured, their standing value was calculated, and most of the trees were measured after they were felled, however, operational harvest constraints prevented the project from being completed last year. Yarding and roadside scaling, and analysis remains to be completed.

Demonstrate that enhanced quality control of falling and bucking will increase the net corporate profit. Select two cutblocks with a similar mix of old growth hemlock, amabalis fir, and western red cedar and comparable terrain and yarding conditions to conduct the study. Fall, buck, and harvest one block using the current corporate standards for quality control and monitoring, and the second cutblock with enhanced levels of on-site monitoring, coaching, training, and value calculation. Incorporate the learnings from previous studies on value recovery in all aspects of quality control. Compare the costs, revenues, and net profit per cubic meter after operations are completed.

Benefits

Demonstrate that investing more effort to extract additional value from the timber resource can result in increased corporate profit.

Project Tasks and Outputs – Current fiscal year

Tasks / Outputs	Expected Delivery Date
Complete data collection and analysis of cedar banding study.	June 2012
Work with log-manufacturing crews and supervisors to show the economic benefits of alternative log-bucking strategies and improved quality control procedures learned from previous studies.	December 2012

Status and Major Accomplishments – Previous year

Started the cedar banding project with cooperating company. Trees have been selected, marked, measured, and partially felled, but the falling has not been completed and the yarding has not been started due to operational delays.

Performance Measures

Key Success Factor	Key Performance Indicator	Target	How the outcome of the Project supports the Program objectives
Cedar banding is recognized to generate increased log value.	Expanded use of cedar banding method in other operations.	Reduce value losses by 25%	Demonstrates opportunities to improve overall profitability by improving value recovery.
Improved quality control programs.	Additional quality control personnel hired.	One additional position hired.	Demonstrates that increased cost can be offset by increased recovered value.

Communication Strategy for Information Dissemination

Results will be published in technical reports plus articles in the coastal bulletin. Results will be presented at the joint Operational Issues forum (industry and BC Ministry of Forests, Lands, and Natural Resource Operations), and to on-site meetings with other coastal companies.

Collaboration – Research Partners

- Western Forest Products