

BC Coastal Hem-Fir Initiative – 2012/13

Project	Development of Veneer-based Hem-fir Composite Products and Processes
Project Number	P.07
Project Leader	Chunping Dai
Project Team	Brad Wang, Heng Xu, Chris Gaston
Total Budget	\$100,000

Need(s)

- BC coast has abundant resource of hem-fir, which is currently underutilized. Opportunity exists to utilize coast hem-fir for value added applications such as LVL and appearance grade veneer.
- One of the biggest cost factors for plywood mills processing hem-fir veneer is high moisture content (MC) and wet pockets. A new “game changing” pressing technology has been developed which could be particularly useful for hem-fir.
- The RF pressing technology developed last year needs to be further developed for commercial application for coastal plywood industry.
- FPInnovations has been approached by several BC companies for technical support for building new mills to produce value-added veneer products using coastal species.

Objectives & Approach

- To further develop the new RF pressing technology for uses in existing plywood mills; and
- To investigate optimum peeling and drying parameters for value-added veneer products using coastal species.

Benefits

- Saving millions of dollar for plywood mills by increasing productivity and reducing bond quality problems using the RF pressing technology.
- Increasing the value of hem-fir by solving the wet pocket processing issues in plywood manufacturing.

Project Tasks and Outputs – Current fiscal year

Tasks / Outputs	Expected Delivery Date
Test the technical feasibility of retro-fitting current presses with RF heating	October 2012
Conduct economic analysis of RF pressing technology for existing plywood mills	December 2012
Develop optimum peeling and drying processes for the new mills	March 2013

Status and Major Accomplishments – Previous year

A new RF pressing technology has been developed during the past year which showed potentially significant benefits , including: pressing at high 9-12% MC veneers versus conventional 2-5% MC veneers, 10 to 15% lower PF glue spread, and >30% reduction in pressing time.

Hem-fir LVL and VSL (veneer strand lumber) products have been made which could potentially be manufactured in BC coast.

Discussions were held with several BC value-added veneer products mills for using coastal species. Tentative agreement has been made for collaboration between FPIinnovations and these new mills.

Performance Measures

Key Success Factor	Key Performance Indicator	Target	How the outcome of the Project supports the Program objectives
Feasibility of RF pressing for existing plywood	Economically feasible analysis results	Technical and economic feasibility report	Support innovation adoption program
Successful peeling and drying process of coastal veneer for value-added applications	Optimum veneer peeling and drying parameters	Establishment of two new mills in BC	Support innovation adoption program

Communication Strategy for Information Dissemination

A report will be produced summarizing findings for distribution. Collaboration with cooperating companies will also occur on an on-going basis.

Collaboration – Research Partners

- Rain Coast Veneer Products
- Aspenware