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CWFC Facts 005

Canadian Wood Fibre Centre

Fibre Facts

Research initiative for improving the competitiveness of the hardwood industry

The hardwood lumber industry in eastern Canada is currently in a vulnerable position due to reduced demand on the American market as well as the transfer to Asian countries of manufacturing facilities for furniture and other secondary products. The raw materials available are no longer of the size and quality required by the existing industrial infrastructure.

The hardwood market is evolving. Secondary manufacturers are looking for supplies of lumber products and components that correspond to their needs. The bioproducts and bioenergy sectors are expanding rapidly with the increase in the price of fossil fuels and are open to new opportunities for the marketing of low-quality hardwood resources.

In this context, FPIInnovations, the world's largest private forest products research institute, and the Canadian Wood Fibre Centre are launching an intensive research and development program for accelerating the transformation and improving the short-term competitiveness of the hardwood sector, i.e. the industry utilizing Canada's hardwood forest resource.

The concept of a research initiative for the hardwood industry was developed by FPIInnovations and the Canadian Wood Fibre Centre in 2008 to improve the competitiveness of the hardwood sector in eastern Canada.

Financing for this initiative, totalling more than \$5M over three years, is provided by Natural Resources Canada's Canadian Forest Service, via the Transformative Technologies Program and the Canadian Wood Fibre Centre, the ministère des Ressources naturelles et de la Faune du Québec, the Government of Ontario, the New Brunswick Department of Natural Resources and the Nova Scotia Department of Natural Resources.

This initiative has three objectives:

- Propose forest management strategies for deciduous forests to meet industrial needs, without compromising the principles of forest sustainability and ecosystem integrity.
- Transform the hardwood lumber industry into a client-focused industrial structure.
- Optimize the value chain of hardwood products.

To succeed in changing the hardwood sector, the initiative proposes a research and development approach based on a business model faithful to the principles of forest sustainability and in which new industrial needs will be the basis of forest management strategies. The initiative will span the value chain from forests to markets. To this end, FPIInnovations will implement 17 projects linked by a common thread of value chain optimization. These projects will comprise an analysis of the markets and needs of

Canadian Wood Fibre Centre

Working together to optimize wood fibre value – creating forest sector solutions with FPIInnovations



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Hardwood stands in Eastern Canada - opportunities to increase value.
(Photo - Marie Anick Liboiron)

industrial segments, an analysis of the processes and transformation technologies, the improvement of harvesting management and performance, and knowledge acquisition on silvicultural opportunities in the deciduous forest. The Canadian Wood Fibre Centre will be directly involved in four of these projects.

In view of the importance of the hardwood industry in eastern Canada, major economic impacts and spinoffs are expected. Numerous jobs are associated with primary processing industries (forest and sawmills), as well as with secondary and tertiary processing industries. There are many factories in eastern Canada and the economy of various municipalities depends on them.

Therefore, it is envisioned that this initiative will lead to a better market position for hardwood products in comparison to other materials for the design and marketing of furniture, wood flooring, architectural products and wooden kitchen cupboards. In addition, improved links between primary and secondary industries will increase business productivity because producers will have improved knowledge of user's needs.

Implementing new procedures and defining the technologies required to carry out these procedures will facilitate innovation in product development, which will increase productivity and improve the salvage harvesting of low-quality wood. The industry will benefit from these advancements, as will equipment manufacturers who will then be able to steer their technological development in the right direction.

The establishment of closer links between forests and sawmills through the identification of sawmills' log supply needs, based on secondary and tertiary processing markets, will lead to enhanced sawmill productivity and better use of raw materials. The bioenergy or biorefinery sector offers the

Research initiative...

possibility of adding low-quality hardwood volume to the range of products capable of generating a certain income in the context of value chain optimization.

While respecting sustainable development and biodiversity concepts, the initiative will promote the establishment of new harvesting and silviculture methods. New approaches will be developed for both hardwood forests severely depleted by previous practices and those benefiting from intensive forest management, but whose value creation potential could be increased. New methods will improve the assessment of stem and stand values. Finally, improved knowledge of the stands will promote more effective planning of harvesting and the supply of logs to sawmills.

At present, various stakeholders, including Provinces and industries are involved in this approach. Partnerships are being developed with other research groups interested in hardwood forests. These partnerships and collaboration with the forest community will be the driving force behind this research initiative, a force that is vital to the transformation of the hardwood industry in eastern Canada.

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