RESEARCH PROJECTS (ACHIEVED)
2013–2014

Program "Wood Products"

Project Title	Team	Objectives	Collaborators	Deliverables
Compendium of research findings in Phase I of the Hardwood Research Initiative	• Jean McDonald* • Dany Normand	• Present the results of Projects 3, 4, 6, 9, 11 of the Hardwood Research Initiative	• Eastern Canada deciduous forest industry firms: about 70 French-speaking participants and 45 English-speaking participants	• Webinars: ½ day in French and ½ day in English (Recording Part I and II)
Benefits of sawn lumber sorting based on user needs	• Jean McDonald	• Present the results of Projects 3, 4, 6, 9, 11 of the Hardwood Research Initiative	• Members of the Ordre des ingénieurs forestiers du Québec	• Presentation given at the 92nd OIFQ convention in Gatineau, September 12, 2013 (In French only)
Software programs for increasing the efficiency of hardwood crosscutting	• Jean McDonald	• Identify the educational software program best able to increase the efficiency of workers performing hardwood crosscutting	• Natural Resources Canada	• Report (In French only)
Hardwood lumber production strategy based on secondary and tertiary processing requirements	• Jean McDonald	• Demonstrate the benefits of a hardwood lumber production strategy based on secondary and tertiary processing requirements • Develop an action plan for continuing efforts to set up a pilot project with various industry stakeholders	• Signature Bois Laurentides	• Confidential report
Best practices for avoiding shakes (or splits??) and checks in hardwood	• Dany Normand* • Dian-Qing Yang	• Determine the best practices for all operations • Update and compile complete information on shake formation • Reduce potential losses • Reduce entry points for flecks and fungus • Maximize product volumes and value	• Natural Resources Canada • Department of Forests, Wildlife and Parks	• Report : Best practices to avoid hardwood checking-**Part II**

Improved shaping of hardwood stems to optimize the value of yields	• Peter Hamilton* • Steve D'eon	• Improve the performance of chain saw operators in order to increase the total value of the basket of deciduous forest products (logs) • Introduce people to the HW Buck computer tool and teach them how it works	• Canadian Wood Fibre Centre (Natural Resources Canada)	• Hardwood bucking workshops - Ontario (4 sessions) - Nova Scotia (2 sessions)
Program "Resource Assessment"				
Project Title	**Team**	**Objectives**	**Collaborators**	**Deliverables**
Impact of partial harvesting on tree grade projections for northern hardwoods of Acadian Forest Region	• Edwin Swift* • Chhun-Huor Ung • Isabelle Duchesne	• Examine the impact and relationships of silvicultural practices (density regulation through partial harvesting) on tree growth, stand dynamics, external quality, fibre attributes, and value in northern hardwood forests of the Acadia Forest Region • Examine the impact and relationships of silvicultural practices (density regulation through partial harvesting) on wood colour of sugar maple and yellow birch in northern hardwood forests of the Acadia Forest Region • Devise and validate statistical equations predicting standing tree value in relation to variables selected at the tree and stand levels for their cost effectiveness and wood properties derived from soundings taken with acoustic sensors on standing trees • Incorporate information obtained in this study to regional growth and yield models used by	• FPInnovations • New Brunswick Department of Natural Resources • New Brunswick Department of Natural Resources • New Brunswick Growth and Yield Unit • Groupe Savoie Ltd. • Acadian Timber Ltd. • JD Irving Ltd. • AV Nackawic Inc. • Sherbrooke University • University of New Brunswick • State University of New York	• Report : Impact of partial harvesting on stand dynamics and tree grades for northern hardwood trees of the Acadian forest region • Poster : Results of stand dynamics from partially harvested northern hardwood stands of the Acadian Forest, Canadian Woodlands Fall Meeting /Northern Hardwood Research Institute Symposium, Edmundston, New-Brunswick. October 1-2, 2013.

		foresters in the Maritime Provinces of Canada, such as Stamen		
Predicting product quality and value in hardwoods	• Isabelle Duchesne	• Present results of the Hardwood Research Initiative	• Northern Hardwood Research Institute (NHRI)	• Presentation given at the NHRI symposium in Edmundston, NB, October 1, 2013 (not disseminated)
The Use of Terrestrial LiDAR to Characterize Single Trees	• Jean-François Côté	• Present results of the Hardwood Research Initiative	• Northern Hardwood Research Institute	• Presentation given at the NHRI symposium in Edmundston, NB, October 1, 2013
Program "Forest Operations"				
Project Title	**Team**	**Objectives**	**Collaborators**	**Deliverables**
Use of the crosscut wood process in deciduous forests	• Philippe Meek	• Determine the best methods for extracting quality logs using harvesters	• Domtar, Windsor • Groupe Savoie, NB	• Report (available in December 2014)
Development of a more efficient supply chain in Outaouais Region deciduous forests	• Philippe Meek* • Jean Plamondon • Jean-Philippe Gaudreau	• Assembly of productivity functions and cost calculations in order to analyse the sensitivity of various supply chains	• Lauzon – Planchers Exclusifs Inc. • Quebec Department of Natural Resources	• Excel calculation sheet (available in December 2014) • Report on the sensitivity of costs to variations in key variables in harvesting operations (available in September 2014)
Integrated harvesting of traditional products and forest biomass in deciduous forests	• Denis Cormier* • Philippe Meek	• Provide alternatives to tree length cutting in a context of partial cutting in order to facilitate biomass harvesting and improve yields of traditional products • Conduct wood flow analyses in order to calibrate the BiOS biomass supply model in deciduous forest and hardwood-dominant mixed forest conditions	• Ontario Ministry of Natural Resources • Lavern Heideman & Sons Ltd • Norampac Trenton • University of Toronto • CWFC	• Two-day workshop in Petawawa, Ontario, October 29 and 30, 2013 (agenda + presentations) • Implementation guide for front-line operators and supervisors (available in March 2015)
Silviculture of Northern Hardwoods in Canada: Issues, Research, and Learning	• Jean-Martin Lussier	• Present results of the Hardwood Research Initiative	• Northern Hardwood Research Institute	• Presentation given at the NHRI symposium in Edmundston, NB, October 1, 2013

Hardwood forest management for quality and value	• Jean-Martin Lussier	• Present results of the Hardwood Research Initiative	• Ordre des ingénieurs forestiers du Québec	• Presentation given at the 92nd OIFQ convention in Gatineau, September 12, 2013 (In French only)
Increase the value of yields in hardwood harvesting operations	• Jean-Martin Lussier	• Present results of the Hardwood Research Initiative	• Fédération des producteurs de bois du Québec	• Presentation given at the 44th convention of the Fédération des producteurs de bois du Québec in Montmagny, May 30, 2013 (In French only)

* Project Agent.