Colloque Eastern CANUSA
Les sciences forestières au-delà des frontières

Eastern CANUSA Conference
Forest Science across the Borders

19-21 octobre 2006 / October 19-21, 2006
Université Laval, Pavillon Alphonse-Desjardins
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Manuel de conférence
Seconde édition avec résumés populaires
Conference handbook
Second edition with popular abstracts
Black spruce and jack pine are the most important species for reforestation in the boreal zone. More than 100 million seedlings are planted annually, mostly in the northern boreal zone. Despite less favourable growth conditions, the extra volume obtained by reforestation using improved material is not negligible given the size of the territory and the number of seedlings planted. Over the last 30 years, one million seedlings from open-pollinated families have been tested in 81 progeny tests distributed within 5 breeding zones for each species. Thirty-six first-generation seed orchards have been established and rogued at 10 years of age. Superior trees were selected based on height growth, stem straightness and branching characteristics, and are now being used in control crosses to produce material for the next generation. They were also propagated by cuttings (black spruce) or grafts (jack pine) and clonal seed orchards were established in the past few years. Genetic gains in volume by using genetically improved seeds are estimated to be 9 m³/ha at 40 years of age for jack pine and to be 15 to 20 m³/ha at 35 years of age for black spruce, compared with natural stand collections.

1Ministère des Ressources naturelles et de la Faune (MRNF), Direction de la recherche forestière, 2700 rue Einstein, Québec, QC, G1P 3W8, Canada. mireille.desponts@mrnf.gouv.qc.ca
2Ministère des Ressources naturelles et de la Faune (MRNF), Direction de la recherche forestière, 2700 rue Einstein, Québec, QC, G1P 3W8, Canada.

Theme: Tree physiology, carbon and nutrient cycles and genetics