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Scarification and fertilization: Facelift creams for *Kalmia* heath?

Thiffault, Nelson¹

Conversion of productive forests into ericaceous heath following wildfires or cutting poses a threat to the maintenance of forest productivity. These sites are frequently characterized by a dense *Kalmia angustifolia*–*Rhododendron groenlandicum* cover, which induces forest succession stagnation. I report on the 15th-year results of a technical trial established in northeastern Québec, where silvicultural options to successfully re-establish conifers on such sites are being studied. The trial was established to evaluate the performance of various conifer species when planted with or without mechanical scarification, and to measure growth and survival impacts of fertilizer amendment at time of planting. In the absence of mechanical scarification, local screefing with a modified brushsaw was viewed as a potential alternative and tested. Fifteenth-year height of *Picea mariana*, *Pinus banksiana* and *Larix sibirica* significantly responded to the combined effects of screefing and fertilization ($p \leq 0.036$). Responses to the various treatment combinations were species specific, but the screefed and fertilized plots always included the tallest trees. Although the layout of the trial did not allow formal comparisons between the unscarified and mechanically scarified sectors, mechanical site preparation was clearly needed to rejuvenate the planted areas and bring back significant forest productivity.

¹Direction de la recherche forestière, ministère des Ressources naturelles et de la Faune, 2700, Einstein, Québec, QC, G1P 3W8, Canada. nelson.thiffault@mrnf.gouv.qc.ca.

Theme: Silviculture
