

Burned timber: salvage logging to promote regeneration

To make up for timber losses caused by fire, salvage logging of burned timber is an economically attractive option. Improved logging practices could promote the establishment of regeneration while reducing the costs associated with the rehabilitation of harvesting sites.

Researchers at Natural Resources Canada's Canadian Forest Service, Concordia University and Université du Québec en Abitibi-Témiscamingue have studied the effects of burned timber salvage operations on seedbeds and the regrowth of stands.

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They first dismissed the possibility of delaying salvage logging for two years after a fire. The whitespotted sawyer, which is more active immediately after a fire, would undermine the quality of the wood. The operation of machinery during harvesting would also significantly impede regeneration.



Photo: S. Gauthier (CFS)

Instead, they recommend that approximately 10% of all burned trees with good seed-yielding potential be left in place. When they are retained primarily along skidding trails, these trees can deposit their seeds in the most favourable seed-



Photo: S. Gauthier (CFS)

beds, such as the disturbed surface of the trails, and in the logged area itself. They will also help maintain biodiversity.

This approach is applicable to coniferous stands of jack pine and black spruce where there is a sufficient number of mature trees that can serve as seed trees to justify a salvage operation. Intense fires often destroy the seed bank in the soil, and in such cases, regeneration depends on seeds carried by the wind

and root suckers. Hence, by eliminating the seeds along with the harvested trees, traditional salvaging methods promote the regeneration of species such as poplar. Softwood regeneration can be facilitated by a simple change in salvage logging practices.

USEFUL LINK:

Canada's Forests – Fire – Harvesting canadaforests.nrcan.gc.ca/article/harvesting-trees

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