Root and Shoot Pruning to Increase Early Growth Rates of Hybrid Poplars in Heavy Clay

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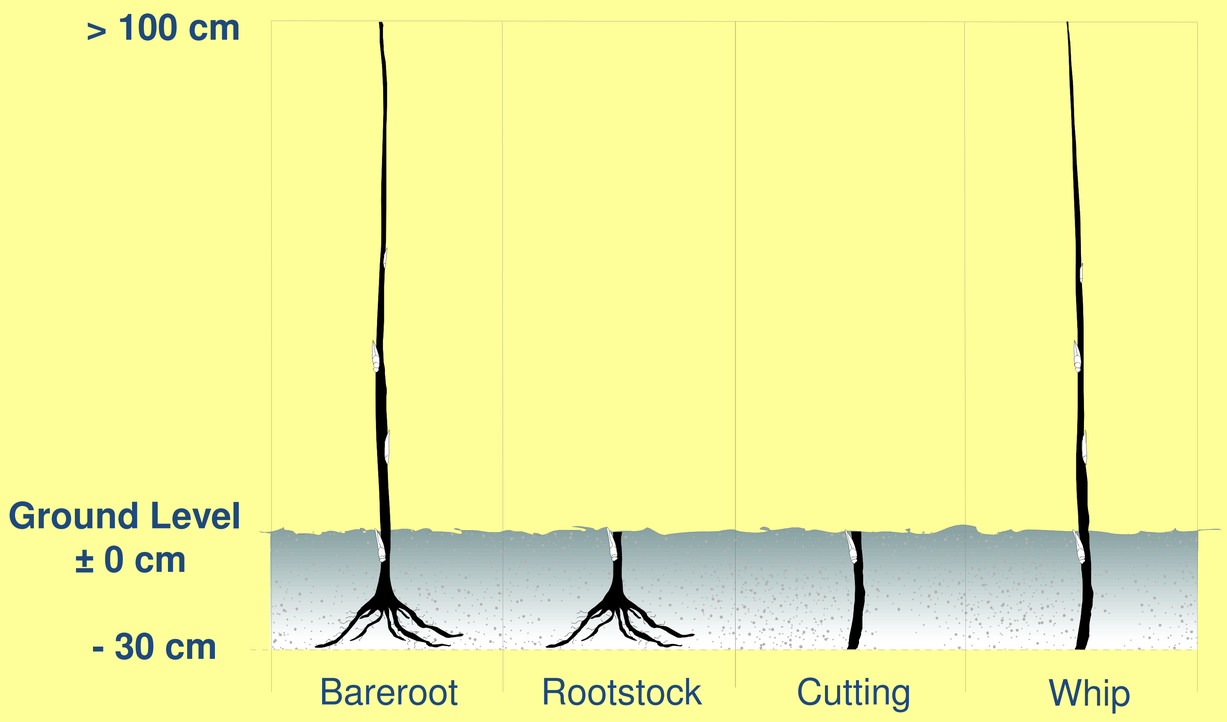
Stock type and quality can have an important impact on early growth rates of plantations. Growth stagnation problems are often observed on heavy clay soils of Northwestern Quebec. Coupled with a short growing season, stem dieback problems and the interdiction of using herbicides, this can be a recipe for disaster for tree farmers.

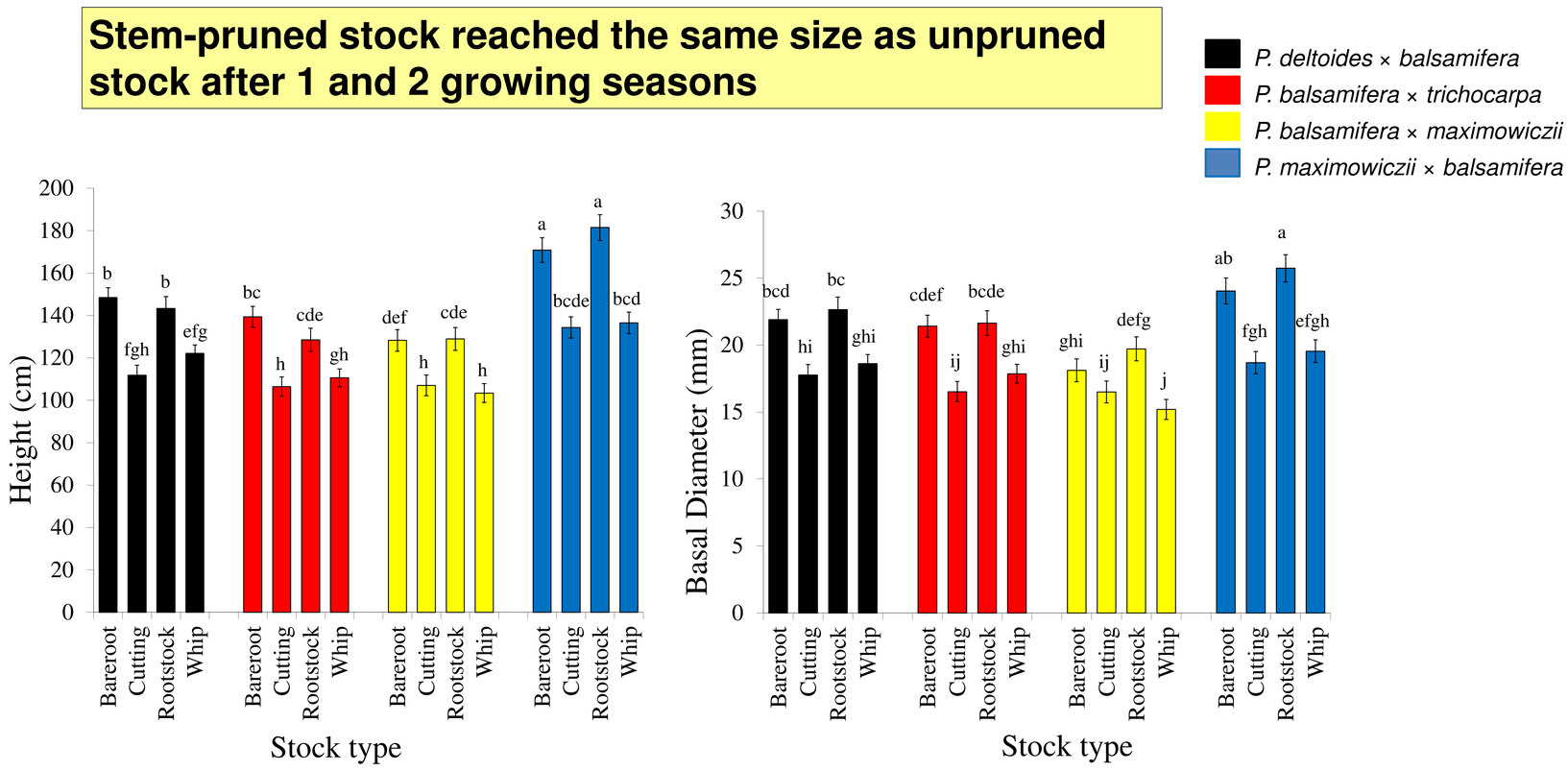
Stem dieback after planting

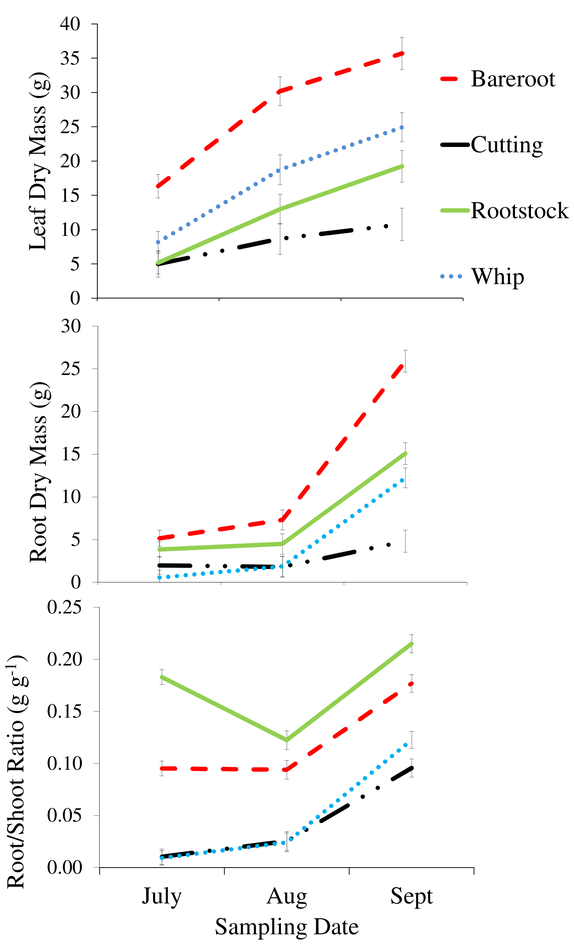
Goal: Evaluate early growth and root/shoot development of 4 planting materials:



Stemmed stock developed much more leaf area after planting, lowering early root/shoot ratios compared to stem-pruned stock

Stem-pruned stock reached the same size as unpruned stock after 1 and 2 growing seasons





Conclusion
Planting stress can be reduced by pruning the shoot of large stock types, without compromising early growth rates.

For more info: DesRochers, A. and Tremblay, F. 2009. The effect of root and shoot pruning on early growth of hybrid poplars. For. Ecol. Manage. 258:2062-2067.

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