

Nursery practices

Plantations in a changing climate: A novel, low-cost nursery treatment to improve seedling survival

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Nursery practices

CFS Climate Change Impacts and Adaptation Project

- ★ Reforestation (including assisted migration) will be part of forest management as the climate changes
- ★ As hotter, drier conditions than normal had recently been reported in southern BC, forest nurseries were contacted about seedling survival
- ★ Nurseries reported that seedlings, which were cultured under traditional nursery practices, were not surviving
 - ✦ replanting was necessary
 - ✦ implications for future wood supply and thus sustainability
- ★ Was there an adaptation measure that could be developed to help seedlings survive drought?
- ★ Could seedling survival be improved using a novel nursery practice?

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Seaweed extract selected

- Selected an *Ascophyllum nodosum* extract (ANE) for study
- It is a pan North Atlantic species
- Dominant brown algae of intertidal zone in sheltered areas
- Common names: rockweed, knotted wrack, Norwegian kelp



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Moving forward

- Woodmere Nursery Ltd., Telkwa, British Columbia is partnering with CFS to evaluate rates and frequencies under commercial nursery conditions
- ANE applied to white spruce and lodgepole pine seedlings in late summer 2014 and a root growth capacity test is now underway
- Stay tuned
- Additional partnerships are welcome

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Another forest nursery in BC and CFS are developing an application to the National Research Council – Industrial Research Assistance Program (NRC-IRAP)* to commercialize the application for white spruce and lodgepole pine.

This does not exclude other NRC-IRAP applications from being submitted.

*NRC-IRAP: <http://www.nrc-cnrc.gc.ca/eng/irap/index.html>

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