



## Why Won't We Embrace Alder? Hardwood Management on the Coast

**BROADLEAF MANAGEMENT HAS BEEN INADEQUATE** on BC's coastal forestlands despite the development of a coast hardwood strategy and field-based training sessions. The annual target area (approximately 1,200 ha) for alder management to develop a sustainable standing timber inventory has not been achieved.

Why is this? There still seems to be a conifer bias amongst many tenure holders and professionals. Red alder is still viewed by some as an unwanted competitor that impedes conifer growth. For parts of the forest industry broadleaf (alder) management requires a culture change. We must start viewing alder as an economic asset rather than a competitor—an opportunity rather than a curse. For this a champion is needed in most organizations, a resource that can be relied on to make things happen. We must not let limited resources prevent us from gaining the knowledge and experience necessary to actively manage for broadleaves (alder) on the right sites.

Red alder (*Alnus rubra*) has proven to be a valuable commercial species, is recognized as having significant timber values and has appreciated in value at a greater rate than many other tree species. Red alder can help diversify the coastal fibre supply and accommodate the increasing demands for non-conifer timber products.

From a timber production perspective there are a few primary benefits that result from the active management of red alder:

- mitigation and diversification of mid-term timber supply
- increased species diversity
- short-term management of root disease, and
- high log values.

In addition to the timber supply benefits, active management of red alder can also play a role in the mitigation of climate change. Intensive, short rotation management of red alder may allow us to better transition from current to future climates. The range of red alder may also expand through climate change providing additional

opportunities for active management.

But achievement of these benefits requires a combination of well-defined objectives at the landscape level and flexible planning at the stand level. A variety of management strategies can be applied at the same time across a management unit to achieve timber supply and timber flow objectives. The types of strategies suggested include intensive management regimes, low investment extensive management regimes and mixedwood regimes.

### **Type One: Intensive Management Regime**

In the intensive, short-rotation management regime, red alder is planted at moderately high densities to promote early development and good stem form and then thinned to maintain rapid radial growth. This type of management regime results in relatively high-value sawlogs being produced in rotations of 25 to 35 years and helps to mitigate mid-term timber supply shortfalls. Long-term timber supply may also benefit under this regime as mean annual increment for red alder will often exceed that of conifers under the same site conditions.

### **Type Two: Low-Investment Extensive Management Regime**

Alternatively under an extensive management regime, alder is planted and grown at relatively high densities without thinning. This approach achieves slower radial growth rates which, in essence, extends the rotation length to achieve target sawlog size. This extensive approach does not provide any timber supply benefits in the short term but does provide for some of the other benefits such as high value logs and increased diversification of the timber supply.

### **Type Three: Mixedwood Regime**

The third approach to alder management is a mixedwood regime, where alder is managed in conjunction with conifers on a similar rotation. The focus for mixedwood management to date has been patch mixedwood strategies, where alder and conifers are typically managed in small separate patches as part of a larger opening. The big advantage of the mixedwood strategy is that it allows for the

acceptance of natural regeneration of alder where it is of sufficient density. Mixedwood management is an opportunity to grow alder at low cost and low risk—an opportunity that we should not overlook in our current economic climate.

In 2008, the Silviculture Working Group of the Coast FRPA Implementation Team (CRIT) with the assistance of technical experts in the field of broadleaf management developed the document entitled "Hardwood Management in the Coast Forest Region." This document outlines a strategy for management of broadleaf species, from a reforestation perspective, across the coast area. The intended objective was to actively manage for and grow a standing timber inventory to support an annual harvest of approximately 300,000 m<sup>3</sup> (approximately 1,200 ha) across the coast area.

Perhaps more technical support is needed to help professionals with the alder management decision and to better understand the benefits and to overcome the risks associated with establishing alder as a crop, especially as we transition to a changing climate. We must look for opportunities to improve our silviculture programs, reducing risk and cost to achieving free growing, while meeting timber supply and sustainability objectives. Growing alder may help with these.

One thing is sure, to develop a sustainable standing timber inventory of red alder, more work is needed to understand the economics of managing, growing and harvesting alder. We must also strive to develop strong market conditions. Operational foresters are encouraged to consider growing some alder. The opportunities are there, we just need to learn to recognize them and take advantage of them. 🐿️

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