# PERFORMANCE OF PLANTED WESTERN REDCEDAR SEEDLINGS IN NORTHERN IDAHO BASED UPON MICROSITE CHARACTERISTICS

A Professional Paper

## Presented in Partial Fulfillment of the Requirements for the

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By

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#### ABSTRACT

Limited plantation success in the past has caused many forest managers to rely on natural regeneration for western redcedar. However, increased demand for the species by the forest products industry necessitates prompt and successful regeneration following harvest. Therefore improved plantation survival for western redcedar is essential.

This study evaluated various microsite characteristics including shade, cover, burn severity and surface litter composition as predictors for planted western redcedar seedling survival and two year performance. Four north Idaho sites were evaluated. Analysis included correlating various characteristics and total seedling biomass, construction of a regression model for predicting seedling mortality.

A high degree of variability was found by site with burn severity being the single most important predictor variable. On burned sites seedlings showed the best survival and performance in the absence of competing vegetation and litter, while on unburned sites seedlings fared best in the presence of forbs, litter, and incipient residue.

#### Study Site:

Big Meadow Creek. Clearcut, 1987 Broadcast burned fall 1987, Planted spring 1989, 600 Seedlings. Slope 10%, aspect southwest, and elevation 3,300 feet.





# Big Meadow Creek Unit



# Location of Complete Research:

Author & Title: Lansing, Caroline Performance of Planted Western Redcedar Seedlings in Northern Idaho Based Upon Microsite Characteristics University of Idaho Library: Call Number-SD397.W46L36 1991

College of Natural Resources:

Department-Forest Resources

Other Sources:











