Alder Control Using Brushsaw with Herbicide
Applicator - Shawnigan Lake

WORKING PLAN

Dr. Jacob Boateng

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Alder control. Using Brushsaw with Herbicide Applicator - Shawnigan Lake

Objectives

1. To assess efficacy of the Brushsaw with herbicide applicator for control of juvenile alder (1-5 cm dbh), using 2,4-D and Roundup.

2. To determine production, safety, chemical requirements and equipment suitability of the Brushsaw with herbicide applicator when it is used under operational conditions.

Introduction

Treatment of juvenile alder stems using a brush saw and/or power saw without herbicide usually results in resprouting from the original stem. Using the brush saw with herbicide applicator is a new system with a number of advantages.

1. The number of resprouts should be considerably reduced due to the herbicide treatment.

2. Operator exposure to the herbicide is low while using the brush saw, as the chemical is applied at a distance of 1-2 m from the worker.

3. The brush saw is safer than a conventional power saw.

4. Labour is reduced by cutting and herbiciding at the same time, rather than a two pass system of cutting and manually applying herbicide.

Methods

Layout of Trial Area

Within the permit area, nine trial plots will be established. A trial plot will have no fixed dimensions, but will cover 800m². Within a trial plot, 10 assessment plots will be located (radius 1.78 m). Each assessment plot will contain 1 target stem (alder) and 1 crop tree (fir). Treatments will be randomly assigned to the trial plots.
Treatments

The area will be treated in August 1984.

1. Roundup (25% product mix)
   
   All alder stems will be treated with Roundup using the brush saw and herbicide applicator.

2. 2,4-D Amine (50% product mix)

   All alder stems will be treated with 2,4-D Amine using the brush saw and herbicide applicator.

3. Control

   All alder stems will be treated using the brush saw only.

   Total area treated with Roundup - 3 plots @ 800m²/plot = 2400m².
   Total area treated with 2,4-D - 3 plots @ 800m²/plot = 2400m².
   Total treated area - 4800m²

Assessment

The crop trees, target species and sample alder tree will be assessed both pre and post treatment.

Pretreatment

Crop trees - % encroachment
- condition (good, fair, poor)
- height
- diameter
Target species - average height
- % cover
- # of stems/plot
Sample alder tree - height
- diameter

Post treatment

Crop trees - damage due to herbicide treatment
- height
- diameter
Target species - # of alive stems
- height
Sample alder tree - # of resprouts/original stem

Post treatment assessments will be conducted in October, 1984 and June, 1985.