TITLE: Seedling Protector Trial
OFFICER I/C: L.M. Hanlon
LOCATION: Duncan Lake Causeway
REGION/DISTRICT: Nelson/Kootenay Lake
OBJECTIVES: To compare early height performance of protected and unprotected Douglas fir seedlings. To monitor the biodegradibility of the protectors
PROGRESS: Working plan in preparation
NEXT SCHEDULED TREATMENT: Trial to be established October, 1987
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                    Nelson Region Library
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INCOMPLETE:
REPORT SX87122N

TITLE Seedling Protector Trial

Report prepared by: [Signature] (Typed)
L.M. Hanlon

Report & Distribution approved by: [Signature] (for Regions - Silviculture Officer) (Typed)
JIM SUTHERLAND

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DAVE OSWALD (Typed)
A. Introduction

Young plantations are subject to many factors which can adversely affect their survival and growth. Damage from animal browsing can be severe, especially lower elevation sites where snow pack is insufficient to protect young seedlings. One method of reducing browsing damage is to protect individual seedlings using plastic mesh tubes. These tubes are expensive to install but should protect the seedlings and allow greater height growth than unprotected seedlings in the short term.

B. Objectives:

This trial will compare early height performance of protected and unprotected interior Douglas fir seedlings. The biodegradability of the protectors will also be monitored to determine how many years of protection are gained.

C. Location:

The trial area is located about 28 km north of Lardeau on the Duncan Lake Forest Service Road.
BCG Map B2K036 - Opening No. 5
Biogeoclimatic Subzone - ICHa 1 (moist)

D. Trial Design:

i) Treatments

Two treatments will be tested:
   i) seedlings protected with 1 m vexar nets
   ii) unprotected seedlings

ii) Layout

The protectors were operationally installed over approximately 1.5 (one and one half) ha - treating every second or third seedling. This was done to provide a larger "target" population of seedlings and to account for movement patterns of the deer and elk.

-A systematic sample of 20 plots on a 20 m grid will be established. The plot centre will be the staked/protected tree nearest the measured distance from the previous plot (20 m). The 4 nearest protected trees (+ 1 at plot center) and the 5 nearest unprotected trees will be measured and mapped. Unprotected trees will be marked with wire flags. This will result in one hundred trees in each treatment being sampled.
E. Measurements:

Total seedling height will be measured to the nearest centimeter immediately after protector installation in October 1987 and subsequently in the fall of 1988, 1989 and 1992. One representative photo point will be established for subsequent photographs.

F. Analysis:

A "t" test will be used to determine if significant differences exist between the average height of the protected versus the unprotected seedlings.

G. Reporting:

An interim report will be produced after measurements are taken in 1989 and distributed through the Sx Trial procedure. A final report will be done by December 31, 1992.
Title: SX 87122 N
For Cov. Map: 82 K, 036-5
Scale: 1:20,000
Air Photo No.: BC 85062 #107
Prov. Forest: LARDEAU
Supply Blk.: A
Reg: 40 Comp: 5
Area: 1.5 ha

U.T.M. Grid: Zone: 11
East: 506215
North: 5574500
History Record No.: 104603