SX 85125C

DIRECT SEEDING TRIAL

Working Plan
1985

T. Harding
(Pinette and Therrien Mills Ltd.)

LIBRARY
MINISTRY OF FORESTS
1450 GOVERNMENT ST.
VICTORIA, B.C.
V8W 3E7
February 19, 1985

District Manager,
B. C. Forest Service,
385 Barnard Street,
Williams Lake, B. C.
V2G 1G2

Attention: Gerry Chapman.

Dear Sir:

RE: Direct Seeding - Silviculture Trial - 780-13-C-85-04.

Please find enclosed our proposal to conduct a direct seeding trial in the Gaspard/Chum Creek area.

A. Purpose

The purpose of this direct seeding trial is to compare the germination survival rate of Douglas Fir and Lodgepole pine seeds on sites prepared by the Leno Scarifier and Hand Screefing utilizing Cerbo cones to protect one half the seeds and leaving the other seeds to the natural conditions.

B. Area

We propose to use an area within Cut Block 9 of Cutting Permit 31 of T.S.H.L. 1920 which has been prepared by the Leno Scarifier. This area is approximately 1300 meters in elevation.
C. Stock

The seedlots chosen have the following characteristics:

<table>
<thead>
<tr>
<th>Seedlot #</th>
<th>Species</th>
<th>Collection Area</th>
<th>Elevation</th>
<th>Germination Rate</th>
<th>Seed Requirement (seeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 3214</td>
<td>PLI</td>
<td>Strouse Lk. 1144 m</td>
<td>90%</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>2. 3088</td>
<td>FDI</td>
<td>Summenang 1143 m</td>
<td>85%</td>
<td>4200</td>
<td></td>
</tr>
</tbody>
</table>

D. Experimental Design

An experimental design consisting of eight rows with 50 planting spots in each row at a spacing of 2m x 2m. The eight rows will be replicated four times. Each planting site will be marked with a numbered wire flag. The eight combinations used will consist of:

a) Leno preparation, 4 seeds exposed PLI.
b) Leno preparation, 4 seeds contained in a Cerbel funnel PLI.
c) Hand screening, 4 seeds exposed PLI.
d) Hand screening, 4 seeds contained in a Cerbel funnel PLI.
e) Leno preparation, 4 seeds exposed DFI.
f) Leno preparation, 4 seeds contained in a Cerbel funnel DFI.
g) Hand screening, 4 seeds exposed DFI.
h) Hand screening, 4 seeds contained in a Cerbel funnel DFI.

E. Number of Seeds

1. 4 seeds per prepared area.
2. 1600 prepared sites.
3. Allowance for germination rate plus 10% additional seeds.
4. Seed to be stratified locally.

F. Measurement of Germination and Survival

1. September 1985 (1 germination season)
2. May 1986 (1 growing season)
3. Sept. 19x6
G. Analysis of Data

Experimental data analysis will be used to determine if there is a significant difference in germination rate for various site preparations and natural or artificial environments for Douglas Fir and Lodgepole Pine.

H. Associated Costs of This Trial

a) Planting: 2 people, 3 days @ $180/day $1,080.00
b) Transportation: truck rental, 3 days @ $50/day 150.00
mileage $0.30/km @ 280km x 3 days 250.00
c) Planting Tools: hand seeders, 2 @ $50 100.00
d) Cerbel funnels: 1000 @ $58.50/1000 + tax 75.00
e) Wire Flags: 1600 @ $0.20/flag 320.00

Estimated TOTAL $1,975.00

Thank you for your consideration.

Yours truly,

PINETTE & THERRIEN MILLS LTD.,

Timothy Harding,
Forestry Department

Enclosure
TH:hjk