Sx87125Q
Working Plan

Mechanical Planting with C & H Planter

H. Dawson
J. Maxwell
1. **Objective**

To determine the field performance of spruce seedlings planted by the C & H Mechanical planter and by manual planting. This will be done by comparing height, caliper and survival data of the two treatments. An analysis of variance will be performed on the variable of interest to determine any significant differences between the treatments.

2. **Location**

55.5 km Chuchinka-Arctic Road, C.P. 6, 93J9 4-12, Bear Lake, Prince George District

3. **Trial Stock**

<table>
<thead>
<tr>
<th>Species</th>
<th>Seedlot</th>
<th>Stock Type</th>
<th>Nursery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sx</td>
<td>29164</td>
<td>PSB 415</td>
<td>Surrey</td>
</tr>
</tbody>
</table>

4. **Plot Design**

This plot consists of 2 treatments X 3 replications X 50 seedlings per replication totalling 300 seedlings. See diagram below:

```
    H   C & H   H   C & H   H   C & H
    |     |       |     |       |     |       |
    |     |       |     |       |     |       |
    |     |       |     |       |     |       |
    50 trees
```

251-300  201-250  151-200  101-150  51-100  1-50

C & H - Mechanical Planter

H - Manual Planting
5. **Schedule of Establishment/Assessments**

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Estab/Plt.</th>
<th>Fall 87</th>
<th>Spring 88</th>
<th>Fall 88</th>
<th>Fall 89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>August 87</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Caliper</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increment</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Survival</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Photography</td>
<td>X</td>
<td></td>
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<td></td>
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<tr>
<td>Progress Reports</td>
<td></td>
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</tr>
</tbody>
</table>

6. **Site Description**

Opening Number: 93J94-12

Tenure: TSHL A00916, C.P. 6

BGC: SBSJ1/10

Moisture Regime: 4/5

Nutrient Regime: C/D

Vegetation Competition: M

LPH: 0-5 cm

Slash % Cover & Ht:

Disturbance: M86 P87 64, 70-72

Site Prep: Windrowed

Aspect & Slope %: FLAT

Timber Type: S, B1

Elevation: 762m

Site Class:

Soil Texture: Si Cl 0-5cm
To Chetwynd

Bear Lk

Highway 97

To Prince George

- North from Prince George
- turn right onto Chuchinka Forest Road
- road forks into Chuchinka-Arctic Road
- continue on until 55.5km
- trials beside road
OPENING NUMBER:
TENURE:
UNIT NUMBER: D
AREA: 22.0 ha.

MACHINE PLANTING = ☐
BCFS AUGUST, 1987
+ 16 Ha
-15 K 829164 415(2+0)
-15 K 829163 313(2+0)

X = Staked Survival Plots
Established 1987

AREA SUMMARY
7 HA PLT'D
Balance for machine plt'g
SL 29163 210 313 SW
93.5 5 41

LEGEND

<table>
<thead>
<tr>
<th>Cutblock Bndry</th>
<th>Timber Type Bndry</th>
<th>Strip Lines</th>
<th>Roads &amp; Landings</th>
<th>Creek</th>
<th>Swamp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

PLOT NUMBER EVERY FIFTH 6 RED
Working Plan for 5 x 87135G Mechanical Planting

1. Objectives

To determine the field performance of spruce seedlings planted by the 6t 41 planter and by hand planting control.

2. Location

Bear Lake, Prince George West District, P.E.

3. Trial Stock

<table>
<thead>
<tr>
<th>Seedlot #</th>
<th>Stock Type</th>
<th>Code</th>
<th>Nursery</th>
</tr>
</thead>
<tbody>
<tr>
<td>291614</td>
<td>PSB 415</td>
<td>857</td>
<td>Surrey</td>
</tr>
</tbody>
</table>

4. Plot Design

The trial area was homogenous and was characterized by even terrain, 0 - 5% slope, medium vegetation and was windrowed. One hundred and fifty replications of each of the two planting methods were completed as follows.
<table>
<thead>
<tr>
<th></th>
<th>C4H</th>
<th>H</th>
<th>C4H</th>
<th>H</th>
<th>C4H</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>50 trees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C4H planter

H - Hand planted

Fifty trees per line
Each replication consists of 50 trees for a total of 300 trees

5. Dates of Treatment & Assessment

- **Planting & Tagging**: Aug 11-15 1988
- **First Assessment**: Oct 87
- **Second Assessment**: Spring 88