Caliper Growth Trial of Summer
Planted PSB Interior Spruce
Sx Number 86122V

Working Plan

1) Objective: To determine the minimum acceptable caliper standard for summer planted PSB 1½ year old interior spruce.

At the present time, nurseries throughout the province that are summer shipping 1½ year old interior spruce, are having difficulty attaining the required 3.5 mm root collar diameter when their stock is to be shipped. This trial has been established to determine if the present root collar diameter standard can be reduced without affecting the field performance of the stock type.

2) As the stock type is planted throughout the province in the summer, it is imperative that trials be established in different locations. Four locations have been chosen.

   A) Benny Lake, 1316.5 km on the Spanish Lake Road. Likely Forest District. Cariboo Forest Region. Weldwood Licensee.

   B) Lute Creek, 20 km on the Lute Creek Road. Clearwater Forest District, Kamloops Forest Region. Ministry area.

   C) East Creek, 70 km, on the Duncan Forest Road, Kootenay Lake Forest District. Nelson Forest Region. Ministry Area.

   D) Chilliwack River Nursery. Chilliwack Valley

3) Trial Stock:

<table>
<thead>
<tr>
<th>Location</th>
<th>Request key</th>
<th>Seedlot</th>
<th>Stock type</th>
<th>Species</th>
<th>Nursery</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>85C 3027</td>
<td>2868</td>
<td>PSB 313</td>
<td>Sx</td>
<td>World</td>
</tr>
<tr>
<td>B</td>
<td>85K 1025</td>
<td>4332</td>
<td>PSB 313</td>
<td>Se</td>
<td>World</td>
</tr>
<tr>
<td>C</td>
<td>85N 5580</td>
<td>0664</td>
<td>PSB 313</td>
<td>Se</td>
<td>World</td>
</tr>
<tr>
<td>D</td>
<td>85N 7302</td>
<td>5286</td>
<td>PSB 313</td>
<td>Se</td>
<td>Surrey</td>
</tr>
</tbody>
</table>

4) Trial Design:

a) For each location: 75 seedlings with calipers between 2.0 - 2.4 mm, 75 seedlings with calipers between 2.5 - 2.9 mm, 75 seedlings with calipers between 3.0 - 3.4 mm, 75 seedlings with calipers equal to or greater than 3.5 mm have been selected.

b) For each location: 1 plot is to be established in an "average" site characteristic location. Within the plot 3 replications of each caliper category (25 trees per replication) will be alternately established for a total of 300 trees and 12 rows. Spacing within the rows will be 30-45 cm; between the rows 30-60 cm.
5) Assessment

1) For each inspection and location:
   a) survival % of each caliper category.
   b) caliper and height growth for all seedlings.
   c) average caliper and height growth for each caliper category.

2) Final summary:
   a) survival % for each caliper category.
   b) statistical information identifying significantly better survival
      caliper categories.
   c) overall caliper and height growth for all seedlings.
   d) average caliper and height growth for each caliper category.
   e) statistical information identifying significantly better caliper
      and height growth caliper categories.

6) Assessment Schedule:

   a) Spring 1987  Interim Report
   b) Fall 1987    Interim Report
   c) Fall 1988    Interim Report

7) Report Distribution:

   Nursery Administrative Officers
   Silviculture Branch
   Nursery Culturists
   Regional Silviculture Officers