WORKING PLAN

SX92110 G

Outplanting Comparison of Similar Stock Types From Two Different Nurseries

Prince George Region
Spey Creek

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92-05-13
TITLE: Evaluation and Comparison of outplanted seedlings of the same Stock Types from Two Different Nurseries.

INTRODUCTION: This trial will Test the suitability of stock grown at Koksilah nursery and Surrey nursery for operational planting.

OBJECTIVES: 1. To compare:
   a) Koksilah seedlings with
   b) Surrey seedlings

Comparisons will consist of measuring the seedlings' height growth, root collar calliper, survival and root development.

STOCK: SX 2+0 415B PSB Seedlot #29157 Koksilah Nursery. Request Key (90G1101)

SX 2+0 415B PSB Seedlot #29157 Surrey Nursery. Request Key (90G1003X)

All stock was operationally grown and stored, no special handling or treatments applied prior to outplanting.

TREATMENTS: All treatments will be applied at the time of planting, as follows:

<table>
<thead>
<tr>
<th>TREATMENT NO.</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SX 2+0 415B Koksilah</td>
</tr>
<tr>
<td>2.</td>
<td>SX 2+0 415B Surrey</td>
</tr>
</tbody>
</table>

LOCATION: Prince George Region (Tabor Mountain - Spey Creek)
**TRIAL DESIGN:** Two location replications for 2 treatments will be established. For each treatment 140 seedlings (4 replications of 35 seedlings) are required at each location. A total of 560 seedlings will be planted and marked at the two locations.

Of the 35 seedlings in each row:

10 - measured for height and calliper and estimated for vegetation competition (#1-20)

25 - measured for survival (#1-25)

10 - available for root examination and destructive sampling (#26-35)

Trees will be spaced 2.0 m apart in rows with rows spaced 3.0 m apart

**METHOD:** Seedlings will be planted using a planting shovel.

At each remeasurement, the survival and condition of each seedling will be recorded. Condition codes are:

1. (0) = Dead
2. (1) = Good - dark green needles, average growth, no damage/disease
3. (2) = Chlorotic and less than average damage
4. (3) = Poor - may have dead leaders or branch tips, less than average growth or growth stressed
5. (4) = Missing
6. (5) = Multiple Top
7. (6) = Frosted
8. (7) = Animal Damage
9. (8) = Animal Kill
10. (9) = Other

Photography will illustrate the site conditions, examples of each condition, seedling performance in each treatment and other pertinent findings.

Photographs will be taken throughout the scheduled measurements. These will be of tree #11 in the first row of each treatment.
SCHEDULE:

<table>
<thead>
<tr>
<th>MEASUREMENT</th>
<th>S/92</th>
<th>F/92</th>
<th>F/93</th>
<th>F/96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height/Calliper</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Survival</td>
<td></td>
<td>X</td>
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<td>Photography</td>
<td>X</td>
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<tr>
<td>Establish Report</td>
<td>X</td>
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<tr>
<td>Interim Report</td>
<td></td>
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<td>X</td>
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<tr>
<td>Final Report</td>
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REPORTS: Establish Report (Fall 1992) - this report will include original stock measurements and summary; maps (1:100,000) showing location of test sites, (1:15,000) showing location of trial plots within treatment blocks and sketches showing the row order for stock treatment types, and representative photography. Trial locations will be documented on mylars and History Records. Map clearance will be requested.

DISTRIBUTION: Research Officer - All regions
Silviculture Officers - All regions
Resource Officer Silviculture - Prince George District
Silviculture Branch Agrologist
Manager, Nursery and Seed Extension Services
MoF Library
TRIAL DESIGN:

At location #1 and #2, 2 treatments will be replicated 4 times. Each replication consisted of 35 trees per row spaced 2 meters apart. Of the 35 seedlings in each row:

Trees (#1-25) measured for survival and condition.
Trees (#11-20) measured for height and calliper and estimated for vegetation competition.
Trees (#26-35) available for destructive sampling.

There were a total of 140 trees of each treatment planted at each location.

Location #1-#2 have 8 rows each, each row is spaced 3 meters apart. A total of 560 trees will be planted.

PLOT MAP SHOWING LOCATION OF TREATMENTS

<table>
<thead>
<tr>
<th>ROW#</th>
<th>TREATMENT</th>
<th>SURVIVAL</th>
<th>EXCAVATIONS</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>2</td>
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<td>3</td>
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<td>4</td>
<td>2</td>
<td>---------</td>
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<td>5</td>
<td>1</td>
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<tr>
<td>6</td>
<td>2</td>
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<tr>
<td>7</td>
<td>1</td>
<td>---------</td>
<td>------------</td>
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<tr>
<td>8</td>
<td>2</td>
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Used for height & Root Calliper Diameter Measurements