WORKING PLAN
4 Blocks

Sx92113 G

Comparison Between

Orchard Class A Seedlings

versus

Class B Seedlings

Prince George Region

Fort Saint James

Russell Warkman

92-05-13
Evaluation and Comparison of Orchard class A seed seedlings and Wild Stand class B seed seedlings.

This trial will examine the validity of using Orchard seed versus Wild Stand seed and to compare the resultant survival and growth of outplanted seedlings.

1. To compare:
   a) Orchard class A seedlings
   b) Wild Stand class B seedlings

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

SEED(Central Plateau High, Orchard #206) 950m
SW 2+0 313B PSB Class A Seedlot #6307 Surrey Nursery. Request Key (90G5010)

SEED(Kloch Lake) 914m
SW 2+0 313B PSB Class B(Wild Stand) Seedlot #8542 Surrey Nursery. Request Key (90G5001)

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

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

<table>
<thead>
<tr>
<th>Block #</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2+0 PSB 313B Orchard class A seedlings</td>
</tr>
<tr>
<td>2.</td>
<td>2+0 PSB 313B Wild Stand class B seedlings</td>
</tr>
<tr>
<td>3.</td>
<td>2+0 PSB 313B Orchard class A seedlings</td>
</tr>
<tr>
<td>4.</td>
<td>2+0 PSB 313B Wild Stand class B seedlings</td>
</tr>
</tbody>
</table>
LOCATION: Fort Saint James (Ocock River)

TRIAL DESIGN: Two replications for each treatment will be established. For each treatment 900+/- seedlings are required. A total of 1800 seedlings will be planted in the four blocks.

Trees will be planted at a 2.77m. spacing.

In each block a transect line will be made diagonally from one corner to the other. Five 3.99m. plots will be on this line (+/-40 trees) in each block. Trees in each plot will be numbered and heights taken.

METHOD: Seedlings will be planted using a planting shovel and operational planters.

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

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

Photography will illustrate the site conditions, examples of each condition, seedling performance in each treatment and other pertinent findings.
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</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Survival</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Photography</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Establish Report</td>
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<tr>
<td>Interim Report</td>
<td></td>
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<td></td>
<td>X</td>
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<tr>
<td>Final Report</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

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 this location 2 treatments will be replicated 2 times. Each replication consists of 450 +/- trees per Block, spaced 2.77 meters apart. Of the 450 +/- seedlings in each block:

40 +/- trees measured for survival and condition.
40 +/- trees measured for height.
Random trees will be use for root examination and destructive sampling.

There were a total of 900 +/- trees of each treatment planted.

Each Block will be 50 metres by 50 metres 1/4 hector. There will be 4 foot cedar stakes every 10m. on all 4 sides. There will be a 4x4 post at the beginning of transect with labels of trial number, block number and treatment numbers. There will be a transect diagonally through block and 5 3.99 metre plots (randomly spaced) staked with 4 foot cedar stakes. Each tree will be marked with 76cm. wire pin and numbered tag.