PHYTOTOXICITY TRIAL WITH BELMARK AND CARBOPURAN

Working Plan

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1984
WORKING PLAN FOR SX 84211 PHYTOTOXICITY TRIAL
WITH BELMARK AND CARBOFURAN

1. Objective
   To determine the effect of Belmark when applied as a foliar spray and carbofuran when applied as a drench to 6 species of conifer seedlings with the purpose of gaining a registration for these products to control root weevils on nursery stock.

2. Location
   A small section of the container compound at Surrey Nursery, as well as 21 m each of panel 29 bed 48 and panel 28 bed 2.

3. Trial Stock
   Container
<table>
<thead>
<tr>
<th>Species</th>
<th>Seedlot</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>White spruce</td>
<td>4012</td>
<td>32 313 blocks</td>
</tr>
<tr>
<td>Englemann spruce</td>
<td>1819</td>
<td>&quot;</td>
</tr>
<tr>
<td>Douglas-fir</td>
<td>1292</td>
<td>&quot;</td>
</tr>
<tr>
<td>Lodgepole pine</td>
<td>3221</td>
<td>&quot;</td>
</tr>
<tr>
<td>Western hemlock</td>
<td>3467</td>
<td>&quot;</td>
</tr>
<tr>
<td>Western red cedar</td>
<td>2367</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

   Bare-root
   2+0 White spruce  1868  16 m of bed
   1+0 Hybrid spruce  4137  "

4. Plot Design
   Container
   (a) Belmark – 6 spp x 4 treatments (recommended rate, 2 x recommended rate, water, control) x 4 replications using randomized block design. Each plot is one 313 styrobloc containing 198 seedlings.

   (b) carbofuran – same as above.

   Bare-root
   Belmark only
   2+0 and 1+0 spruce x 4 treatments (recommended rate, 2 x recommended rate, water, control) x 4 replications using randomized block design. Each plot is a one meter section of seedbed with 30 cm spacers in between.
5. **Dates of Spray and Assessment**

   (a) **Spray**

   Belmark will be applied as a foliar application using a back-pack sprayer at the end of June. Carbofuran will be applied as a soil drench using a syringe at the end of July.

   (b) **Assessment**

   Visual assessments will be made 24 hours and 1 week after insecticide application.

   Random seedlings will be measured for height, caliper and root weight at the end of the growing season.

6. **Summarize and Report**

   Report will be completed winter 1984. Data on Belmark will be sent to Ottawa with an application for minor use. The data on carbofuran will be kept for future reference.

7. **Report Distribution**

   Ottawa minor use program
   Nursery container and bare-root culturists.
   Manager of Nurseries.
   Library, Silviculture Branch