REPORT SX 86204 k

INTERIM

FINAL

DATE Feb. 27, 1987

TITLE Operational trial to compare the effectiveness of MCPA and Amitrol-T at controlling horsetail at Skimikin nursery.

Report prepared by: Gary Smith (Signature)

Gary Smith (Typed)

Report & distribution approved by: (Signature) (for Regions - Silviculture Officer)

(Typed)

(a) Wide Distribution □
(b) Limited X
(i) Internal - Branch only X
(ii) External - Designated □
(iii) Ministry only □

COPIES TO:

LIBRARY
MINISTRY OF FORESTS
1450 GOVERNMENT ST.
VICTORIA, B.C.
V8W 3E7

634.909/711/ BCMF SIL/SX 86 SMITH, GARY.
OPERATIONAL TRIAL TO COMPARE THE EFFECTIVENESS CCMA c. 1 ma Main........

Approved:

(Manager - (Signature) (for Regions - Forestry Manager)

(Typed)

634.909
711
BCMF SIL
SX 86204K
c. 1 ma
Operational Trial - to compare the effectiveness of M.C.P.A. Amine 500 and Amitrol-T to control Equisetum at Skimikin Nursery.

The areas for spraying were flagged throughout the growing season by the nursery workers while weeding. These areas were then divided up as per instruction of Gwen Shrimpton dated July 3, 1986. These areas were then treated using Amitrol-T or M.C.P.A. The M.C.P.A. was applied at 1 litre of product in 1100 litres of water while the Amitrol-T was applied at 15 litre in 455 litre of water. Application of both materials was carried out by nursery staff. Spray was applied using a hand held spray wand using 300 KPA. All applications were made in the morning, taking approximately 4 hours to complete each application. The Amitrol-T was applied on July 10, 1986 with assessments done on July 17, 1986 at 1 week and August 7, 1986 at 4 weeks. The M.C.P.A. was applied on July 14, 1986 with assessments done on July 22, 1986 at 1 week and August 11, 1986 at 4 weeks. Spray assessment done as per Gwen Shrimpton's assessment sheet. Results attached on separate sheet.

The Amitrol-T was applied in the morning with a slight drizzle starting about the time of completion. This turned to heavier rain about 2 hours later. The M.C.P.A. was applied in the morning and rain fell about 4 hours after completion.

1 Week Assessment
On July 17, 1986 one week after the Amitrol-T was sprayed the patches of Equisetum were checked. It was found that the growing tips were turning black and dying back. The trees around the spray area were showing some browning of the needle tips. New flushes on the spruce appeared healthy. After the spray program was carried out many new plants came up in Panel 14 (Transplants) making a good assessment very difficult. On July 22, 1986 one week after the M.C.P.A. was sprayed the patches of Equisetum were checked. The Equisetum has turned brown and wilted down. At this time the fir, transplant spruce and 2-0 spruce with bud set showed no damage. Any spruce still flushing showed signs of wilting and discoloration to both the terminal and laterals. The 2-0 P1 is showing signs of discoloration and damage to the stem.

4 Week Assessment
On August 7, 1986 the Amitrol-T spray areas were again assessed. At this time most of the Equisetum is completely brown and dried out. Most of the seedlings that were hit directly are also brown and dead. Trees around the perimeter of the spray area are showing some needle discoloration to the laterals and the terminal. In some of the large patches were the Equisetum had been quite tall some plants had not completely died down but were showing signs of some amount of damage. These plants
may continue to die or another application may be required to finish the job. No new regrowth has occurred within the spray areas and only in some cases has a new plant come up outside the perimeter.

On August 11, 1986 the M.C.P.A. spray was assessed. The Equisetum plants that had been present at the time of spraying were completely died down. However, there were new plants growing within the spray area in some cases. These plants were up to 4" tall and must have emerged just after the spraying was done. In some cases new plants were growing around the perimeter of the spray area. Panel 14 was not very easy to assess due to the number of new plants that had come up and been marked. The Pl 2-0 that was sprayed with M.C.P.A. was damaged quite badly with a lot of discoloration and distortion of the stems evident. These trees would not recover to make a plantable seedling. Those areas in the Fir that were sprayed are stunted and definitely set back. This could be partially due to the spraying or the competition prior to spraying. These trees will however not make standard and will therefore be culled. The spruce appears to have taken the spray without too much adverse effect at this time.

Stock losses from Amitrol-T may result from spraying the crop but eradication of this weed is slowly being achieved. Stock losses from M.C.P.A. also appear evident and no eradication seems to be taking place.

A final assessment will be carried out with Gwen Shrimpton on August 1986.
## Spray Assessment for Equisetum Control

**Sprayed:** July 14/86

<table>
<thead>
<tr>
<th>Week</th>
<th>July 17/86</th>
<th>Equisetum Control</th>
<th>Seedling Damage</th>
<th>July 27/86</th>
<th>Equisetum Control</th>
<th>Seedling Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel 2</td>
<td>5</td>
<td>5</td>
<td></td>
<td>10</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Panel 3</td>
<td>5</td>
<td>5</td>
<td></td>
<td>10</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Panel 4</td>
<td>5</td>
<td>5</td>
<td></td>
<td>10</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Transplants</td>
<td>5</td>
<td>5</td>
<td></td>
<td>10</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Aug 7/86</th>
<th></th>
<th>Aug 11/86</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel 2</td>
<td>9</td>
<td>2</td>
<td>10*</td>
<td>9</td>
</tr>
<tr>
<td>Panel 3</td>
<td>9</td>
<td>2</td>
<td>10*</td>
<td>4</td>
</tr>
<tr>
<td>Panel 4</td>
<td>9</td>
<td>2</td>
<td>10* see note</td>
<td>9</td>
</tr>
<tr>
<td>Transplants</td>
<td>9</td>
<td>5</td>
<td>10*</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Aug 28/86</th>
<th></th>
<th>Aug 29/86</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel 2</td>
<td>10 or 9</td>
<td>1</td>
<td>9</td>
<td>4-6</td>
</tr>
<tr>
<td>Panel 3</td>
<td>10 or 9</td>
<td>1</td>
<td>7-9</td>
<td>1-3</td>
</tr>
<tr>
<td>Panel 4</td>
<td>9</td>
<td>1</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Transplants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>