VERIFICATION OF THE CHEMICAL ROOT-PRUNING TECHNIQUE AT HARROP NURSERY

Working Plan

R. Hagel 1983
Verification of the Chemical Root Pruning Technique at Harrop Nursery

Objective

The purpose of this trial is:

(1) To confirm that the chemical root pruning treatment (see Appendix I) is consistently effective and reliable at Harrop Nursery.

(2) To determine whether the treatment is equally effective with the use of blocks treated the previous season (used in SX 82205 Q).

Method and Procedures

Pl seeds will be sown in PSB 211 styroblocks (in the following treatments) then grown with the production seedlots under standard nursery culture.

Treatments

<table>
<thead>
<tr>
<th>Seedlot</th>
<th>Number of blocks to be sown</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Control (new untreated blocks)</td>
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<tr>
<td>PI 2164</td>
<td>36</td>
</tr>
<tr>
<td>PI 3130</td>
<td>36</td>
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</tbody>
</table>

The treatments should be arranged in the shelterhouse as follows:

- Copper treated
- Control
This 24 block unit would be repeated for the three copper block treatments (newly treated blocks, OIP blocks, SIP blocks) within each seedlot (P1 2164 and P1 3130).

Seedlots and Number of Cavities

P1  #2165/82N6/B3/1.067  
S.Z. #3070 (Blaeberry)  
Germination 82% - 308 seeds/g

P1  #3130/82E15/B3/1.525  
S.Z. #2030 (W. Kettle R.)  
Germination 86% - 325 seeds/g

Cultural Methods

(1) Soil mix should be consistent for all treatments.  
Soil mix (1 cu. yd.) to consist of:  
- 4 bales (4 cu.ft. each) peat moss  
- 2 bags (4 cu.ft. each) vermiculite  
- 2.25 kg 12 mesh and finer dolomite lime  
- 1.5 kg osmocote 18-6-12

(2) Soil mixing, block loading, tamping, sowing and gritting all to be done at Harrop Nursery.

(3) Standard fertilizer schedules to be used for all treatments.

(4) If cultural problems (such as iron chlorosis) shows up during the growing season Glenn Matthews should be contacted to recommend remedial action.

(5) Monitor dates, extent, duration of any cultural problems with chemical treated styroblocks.

Monitoring

At the end of the season I will sample stock grown in each treatment for a morphological assessment. Also the stock from the copper painted blocks will be assessed for the effectiveness of the copper pruning treatment.
Appendix I

Copper treatment (0.1 kg/l conc)

to:

11.25 l paint (or 2.5 gallons)

add

1.125 kg cupric carbonate made into a suspension in water
to make 5.0 litres (volume of water plus cupric carbonate).

This produces a final concentration of 0.07 kg cupric carbonate
per litre of final solution.