Re: SX 86208Q Growing Medium Trial

Introduction

This trial will serve to substantiate the observed benefit (1985) to western red cedar of growing in a peat-perlite mix, and will extend the species evaluated to include lodgepole pine. It will also evaluate the potential of pre-mix growing media being provided by Fisons Western Corporation from their plant in Elma, Manitoba. The media provided by Fisons will be duplicated at Saanich Test Nursery using Alberta peat compared to the Manitoba peat in the Fisons pre-mixes.

Experimental Design

Treatments with lodgepole pine will be sown in PSB 211's and grown entirely in the open compound. Treatments in other species will consist of 4-313A styrobloks. They will be greenhouse started and moved into full light as each treatment is to be changed from grower to finisher formulations.

All treatments, except the W.R. Grace pre-mix, will contain 3 kg/m$^3$ Green Valley 10 mesh and fizer dolomite lime, Osmocote 18-6-12 at 6.5 kg/m$^3$, and FTE 503 at 130 g/m$^3$. The W.R. Grace pre-mix will have Osmocote 18-6-12 and FTE 503 added at the same rates. It contains lime and none will be added. All treatments will be started and finished with Green Valley 10-51-16. Green Valley 20-20-20 will be applied at 125 ppN during the growing season if soil salinities or growth indicate the need.

The seedlots to be used are:
  Sw (SZ 3110) 93H11/83/4177/.914 - 89%
  Cw (SZ 1070) 92J11/83/3456/.860 - 84%
  Fdc (SZ 1090) 92M10/83/7752/.460 - 94%
  Pl (SZ 2030) 82L3/B2/2620/1.433 - 81%

All treatments should be double sown and thinned to one seedling per cavity.

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Treatments

   - 3 peat; 1 vermiculite
   - 3 kg/m$^3$ dolomite
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 g/m$^3$ FTE 503

2. Saanich Test Nursery mix. Fisons Seba Beach peat.
   - 2 peat; 1 vermiculite
   - 3 kg/m$^3$ dolomite
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 g/m$^3$ FTE 503

   - 100% peat
   - 3 kg/m$^3$ dolomite
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 g/m$^3$ FTE 503

4. Saanich Test Nursery mix. Fisons Seba Beach peat.
   - 3 peat; 1 Perlite (Aurun)
   - 3 kg/m$^3$ dolomite
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 g/m$^3$ FTE 503

5. Saanich Test Nursery mix. Fisons Seba Beach peat.
   - *3 peat; 1 Perlite (Aurun)
   - 3 kg/m$^3$ dolomite
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 g/m$^3$ FTE 503

* This treatment will differ from #4 in that it will be watered to its own requirements (i.e., more frequently) than the other treatments.

6. W.R. Grace Forestry mix complete with the following additions:
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 kg/m$^3$ FTE 503

7. Fisons Manitoba mix.
   - 3 peat; 1 vermiculite
   - 3 kg/m$^3$ dolomite
   - 6.5 kg/m$^3$ Osmocote 18-6-12
   - 130 g/m$^3$ FTE 503
8. Fisons Manitoba mix.
   - 2 peat; 1 vermiculite
   - 3 kg/m³ dolomite
   - 6.5 kg/m³ Osmocote 18-6-12
   - 130 g/m³ FTE 503

   - 100% peat
   - 3 kg/m³ dolomite
   - 6.5 kg/m³ Osmocote 18-6-12
   - 130 g/m³ FTE 503

10. Fisons Manitoba mix.
    - 3 peat; 1 perlite
     - 3 kg/m³ dolomite
     - 6.5 kg/m³ Osmocote 18-6-12
     - 130 g/m³ FTE 503

Observations Required

All treatments will be processed for morphological description in late 1986. Subjective observations such as differences in colour and susceptibility to disease should be recorded. Tissue analysis may be conducted if it appears to be warranted.

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GM/dak