

SX 80204 Q

Improving Rooting of Interior Fir

Treatment will attempt to improve the quantity and fibrosity of root in interior Douglas fir. Additional control and Hydrogel stock will be grown for possible dry site planting trials.

Experimental Design

Each treatment will consist of 3 PSB 313's except treatment 1 will have 6 blocks and treatment 4 will have 12 blocks for future planting trials. Blocks will be prepared at PFRC and moved to Margerite after mid-April. The seedlot to be used is;

Fi (5020) 92015/B3/3088/1.14 85% - double sow.

Treatment 1; Control. Standard 3:1 peat-vermiculite with 3 kg/m^3 12 mesh + finer dolomite lime. This will receive a standard fertilizer schedule consisting mostly of 20-20-20 applications during the main growing season.

Treatment 2; High P. Soil mix as in control. Fertilizer schedule will alternate 20-20-20 and 10-52-17 during the main growing season.

Treatment 3; Potting soil. Blocks will be loaded with a commercial potting soil. Fertilization will be the same as in treatment 1 (control).

Treatment 4; Hydrogel. Standard soil mix as in treatment 1 with the addition of 3 kg/m^3 Hydrogel 2. Fertilization will be the same as in treatment 1 (control).

Treatment 5; Hydrogel - High P. Soil mix containing Hydrogel 2, as in treatment 4. Fertilizer schedule will alternate 20-20-20 and 10-52-17 as in treatment 2.

Treatment 6; Hydrogel - Potting Soil. Commercial potting soil as in treatment 3 but containing 3 kg/m^3 Hydrogel 2. Fertilization will be the same as in treatment 1 (control).

Evaluation of Results

Treatments will be sampled at the end of the growing season and assessed for height, root collar diameter and top and root dry weights. Root systems will be evaluated for numbers of laterals in depth zones. The possible purchase of a

rhizometer would likely help quantify root form.

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