To: Glenn Matthews

Re: 89-87 10 Nutrient Trial

Introduction
This trial will follow up the previous nutrient trial work dealing with optimal nutrient levels for different species and the manipulation of these levels to alter the growth patterns in fast growing species. Starting with various N and P levels, an attempt will be made to control growth by altering these levels without actually causing nutrient deficiencies to occur.

Experimental Design
Each treatment will consist of 4 replicates loaded with the standard 3 peat:1 vermiculite media, containing 2 kg/m³ dolomite lime and 0.75 kg/m³ Micromax. STEM will be added throughout at 0.5 kg of the control fertilizer weight. During the growing season, each treatment will be modified in an attempt to produce the desired growth pattern.

Seedlots
The following seedlots will be used:
Sw 4177 (MRB): 73H11/83/4177/0.21 - 35% 436 s/g
Fdc 7752 (CSM): 72H10/83/7752/0.46 - 24% 105 s/g
Cw 3546 (1070): 72/11/83/3546/0.86 - 34% 736 s/g

Treatments
1. Control Green Valley Regime
   -Grower: 20-20-20 at 100 ppm N
   -Finisher: 10-51-16 at 50 ppm N

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11. Red Rock Plant Prod Regime
Plant Prod 20-8-20 as per Red Rock Research Station regime
Located at Red Rock Research Station and Saanich Test Nursery

* Finisher for all treatments except treatment 1 will be the same as the grower for treatment 5

* Finishers will be applied only after bud set

* Only nutrient manipulation and removal of photoperiod lights will be used to initiate bud set

**Evaluation**
Static samples will be collected during the season and used to generate
growth curves. Random samples collected at the time of bud-set and at the end of the year will be processed for morphological comparison. Tissue analysis samples will be collected at bud set and at the end of the growing season. If practical, soil samples will be collected and pH, conductivity, and specific ion concentration (nitrate, ammonium, potassium) will be measured. Frequent observations will be recorded with regard to incidence of disease and general appearance (colour differences, growth). Observations will be made and recorded, during extraction and packaging, regarding numbers culled on the basis of root development or disease.

[Signature]
Allan McDonald
Saanich Test Nursery

cc: Susan Zedel