Subject: SX 84206 Q Plant Starter Trial

Introduction

It is not clear if the use of high phosphorous fertilizers has been advantageous in the growth of germinants. Also it is not known what the optimum length of time is before switching to "grower" formulations. At Prince George in 1983, distinct growth advantages were reported as a result of using "starter" formulations at much higher rates than normal.

Experimental Design

Each treatment will consist of 3 PSB 313 Styroblocks. Treatments should be greenhouse started before being moved outside in early summer. All treatments will be based on standard 3 peat: 1 vermiculite growing medium containing 3 kg/m³ Green Valley 10 mesh and finer dolomite lime.

The seedlot to be used is:
Sw (SZ 3110) 93H11/B3/4177/.414 89%

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

Treatment 1.
Starter: Green Valley 10-52-17 at 75 ppm N - 0 Weeks
Grower: Green Valley 20-20-20 at 125 ppm N
Finisher: Green Valley 10-52-17 at 75 ppm N

2. Starter: Peters 7-40-17 at 75 ppm N - 0 Weeks
Grower: Peters 20-7-19 at 125 ppm N
Finisher: Peters 4-25-35 at 75 ppm N

3. Repeat (1) using starter for 2 weeks
4. Repeat (2) using starter for 2 weeks
5. Repeat (1) using starter for 4 weeks
6. Repeat (2) using starter for 4 weeks
7. Repeat (1) using starter for 6 weeks
8. Repeat (2) using starter for 6 weeks
9. Repeat (1) using starter for 8 weeks
10. Repeat (2) using starter for 8 weeks
11-20. Repeat (1-10) using starter formulations at 200 ppm N.

Requirements

20 treatments x 3 blocks = 60 PSB 313's
  = 11880 cavities x 2 seeds = 23760 seeds.

20 treatments of standard soil mix = 60 blocks.

Observations Required

At the end of the growing season, all treatments will be processed for comparative morphological description and tissue analysis. Observations of differences in height and color should be recorded at the end of each period of "starter" applications.

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