SX 84207Q

OSMOCOTE-NUTRICOTE COMPARISON

Working Plan

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Ministry of Forests
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Subject: SX 84207 O Osmocote-Nutricote Comparison

Introduction

Past trials with Nutricote show potential as a substitute for the controlled release fertilizer, Osmocote. Part of the difficulty has been in knowing which type of Nutricote to use. The distributor now is recommending 16-10-10, 180 day release for conifer crops, and 3 parts 180 day to 1 part 40 day release for bedding plants. Others who have compared these products have reported similar growth but better fall color with Osmocote. This could be due to sulphates present in Osmocote formulations.

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 3010) 93H11/B3/4177/1.914 89%

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

Treatment 1. Incorporate Osmocote 18-6-12 (9 month) at 4 kg/m³ (3 kg/cu. yd.) and FTE 503 at 0.13 kg/m³ (0.10 kg/cu. yd.) into the standard growing medium

2. Osmocote 18-6-12 at 6.5 kg/m³ (5 kg/cu. yd)
3. Osmocote 18-6-12 at 9 kg/m³ (7 kg/cu. yd)

4. Incorporate Nutricote 16-10-10 (180 day) at 4.5 kg/m³ (3.45 kg/cu. yd) and FTE 503 at 0.13 kg/m³ (0.10 kg/cu. yd) into the standard growing medium.
5. Nutricote 16-10-10 (180) at 7.3 kg/m$^3$
   (5.625 kg/cu.yd)
6. Nutricote 16-10-10 (180) at 10.125 kg/m$^3$
   (7.8 kg/cu.yd.)
7. Incorporate Nutricote 16-10-10 (180 day) at
   3.375 kg/m$^3$ (2.6 kg/cu.yd) and Nutricote 16-10-10
   (40 day) at 1.125 kg/m$^3$ (.85 kg/cu. yd) and FTE 503
   at 0.13 kg/m$^3$ (0.10 kg/cu. yd)
8. Nutricote 16-10-10 (180) at 5.475 kg/m$^3$
   (4.2 kg/cu.yd) and Nutricote 16-10-10 (40) at
   1.825 kg/m$^3$ (1.425 kg/cu. yd)
9. Nutricote 16-10-10 (180) at 7.6 kg/m$^3$ (5.84 kg/cu.yd)
   and Nutricote 16-10-10 (40) at 2.525 kg/m$^3$
   (1.95 kg/cu. yd)
10. Repeat treatment 2, applying FeSO4 at 150 g/1000 l
    every 2 weeks.
11. Repeat treatment 5, applying FeSO4 at 150 g/1000 l
    every 2 weeks.

Requirements

11 treatments x 3 blocks = 33 PSB 313's
= 6534 cavities x 2 seeds = 13068 seeds.

All treatments contain 3 peat: 1 vermiculite with 2.25
kg/cu.yd, dolomite lime and 0.10 kg/cu.yd. FTE 503 trace elements.

- 3 blocks 18-6-12 at 3 kg/cu. yd.
- 6 blocks 18-6-12 at 5 kg/cu. yd.
- 3 blocks 18-6-12 at 7 kg/cu. yd.
- 3 blocks 16-10-10 (180) at 3.45 kg/cu. yd.
- 6 blocks 16-10-10 (180) at 5.625 kg/cu. yd.
- 3 blocks 16-10-10 (180) at 7.8 kg/cu. yd.
- 3 blocks 16-10-10 (180) at 2.5 kg/cu. yd.
   and 16-10-10 (40) at 0.85 kg/cu. yd.
- 3 blocks 16-10-10 (180) at 4.2 kg/cu. yd.
   and 16-10-10 (40) at 1.425 kg/cu. yd.
- 3 blocks 16-10-10 (180) at 5.85 kg/cu. yd.
   and 16-10-10 (40) at 1.95 kg/cu. yd.

33 PSB 313's
Observations Required

At the end of the growing season, all treatments will be processed for comparative morphological description and tissue analysis. Observations should be made of growth and color differences among treatments.

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