SX 83203 Q

CRUSHED OLIVINE ROCK AND LIME TRIAL

WORKING PLAN  FEBRUARY 1983

G. Matthews  1983
To: A.E. McDonald

Silviculture Branch Library

From: Silviculture Branch

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Subject: SX 832030 Crushed Olivine Rock and Lime Trial

Introduction

Sources of dolomite should be assessed in comparison to the standard 3 kg/m³ of Green Valley 12 mesh and finer dolomite. In addition, a crushed Olivine rock source containing magnesium and substantial amounts of iron could eliminate the necessity of ferrous sulphate applications. All treatments will receive conventional soluble fertilization regimes. Half the treatments will receive ferrous sulphate every two weeks, half will receive no additional ferrous sulphate.

Experimental Design

- Each treatment will consist of 3 PSB 211 styroblocks for PI and 3 PSB 313 styroblocks for Fdi. Each treatment within the ferrous sulphate and non-ferrous sulphate groups will be randomized.

- Seedlots to be used are:
  Fdi (SZ 5020) 92015/83/3088/1.143 85%
  PI (SZ 2030) 82L3/B2/2620/71.433 83%

Both seedlots will be double sown and thinned to one seedling per cavity.

Treatment 1. Control. Standard 3 peat:
1. Vermiculite soil medium containing 3 kg/m³ 12 mesh and finer dolomite lime.
2. Standard soil medium containing no lime.
3. Standard soil medium containing 3 kg/m³ Greenleaf lime.
4. Standard soil medium containing 3 kg/m³ Dolowite lime.
5. Standard soil medium containing 3 kg/m³ Minorex Olivine flour.
6. - 10. All lime treatments repeated. Treatments 1-5 receive additional ferrous sulphate bi-weekly at 150 g/1000 l. Treatments 6-10 will receive no additional ferrous sulphate.

Requirements

10 treatments x 3 reps x 2 species = 30 PSB 211's &
  30 PSB 313's.
30 PSB 211's - PI 2620 = 7200 cavities x 2 seeds = 14,400 seeds.
30 PSB 313's - Fdi 3088 = 5940 cavities x 2 seeds = 11,880 seeds.
Observations Required

Observations should be made of the occurrence of chlorosis during the growing season. The pH of all treatment should be determined at 1-month intervals. At the end of the growing season all treatments will be processed for morphological description.

G. Matthews
Agriculturist
Container Productivity

GM/cm