SX 83209 Q

SEEDING TRIAL WITH CLASS A SEED

WORKING PLAN

G. Matthews
Working Plan

SX 83 209 Q  Seeding Trial With Class A Seed  
(G. Matthews, C. Bartram, N. Marshall)

Introduction

Among the changes in sowing rules for 1983, seed in the 86-96% germination range is being double sown instead of single sown, with a reduction in oversowing from 35% to 25%. This has caused some concern in the increased use of seed in general, and in the use of Class A seed in particular. Class A seed of Douglas fir is larger than wild seed and may produce larger, more vigorous seedlings. It may be possible, therefore, to recover more plantables from Class A seed than wild seed. The possibility then arises that we may be wasting seed by double sowing Class A seed in the upper part of this germination range.

Koksilah nursery is sowing two suitable fir seedlots of Class A seed. Seedlot 4362 at 87% is near the bottom of the range and seedlot 4359 at 93% is near the top of the range. In order to answer some of the questions on sowing rules, the nursery will be asked to sow some of these blocks at one seed per cavity. Although these crops are to be sown in PSB 211's for transplant, some differences in quality may be detectable.

Experimental Design

Each treatment will consist of 25 PSB 211 Styroblocks. The 25 double sown blocks will be representative of the regular sowing. The 25 single sown blocks must be machine sown to be representative of a production sowing.

- The seedlots to be used are:
  Fdc (1010)  A4/4362/.225  87%
  Fdc (1010)  A4/4359/.225  93%

Treatment 1: Control. Standard double sowing by machine as indicated by 1983 sowing rules.

Treatment 2: 25 PSB 211 Styroblocks single sown by machine in each of two Class A seedlots.
Observations Required

Germination curves should be based on counts in 5 blocks in each treatment and seedlot. At the end of the growing season, a subjective comparison of the number of acceptable seedlings in 25 blocks of each treatment should be made. Random samples of each treatment should also be taken for morphological description at the end of the growing season.

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Summary

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Changes in container sowing rules for 1983 include increasing the number of seeds per cavity to 2 from 1, in the germination range 86-95%. This has raised some concern regarding the use of Class A seed and the impact on seed orchard planning. Since Class A Douglas fir seed is larger than wild seed, it may produce more plantables on average. This means that Class A seed in the upper part of this germination range might produce the same number of plantables when only single sown. To test this theory, two Class A seedlots (4352-87% and 4359-93%) being sown at Koksilah will have 25 blocks of each single sown to compare with the normal double sowing. Observations will include germination curves, the yield of plantables, and morphological comparison.

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