SX 85211 Q
Lodgepole Pine Density Trial
WORKING PLAN
G. Matthews
June 1985
To: Superintendent
Quality Control Technician
Skalmkin Nursery

From: Silviculture Branch
Date: 85.06.27
File: 955-21

Subject: Lodgepole Pine Density Trial SX 852110

Introduction

In J. Sweeten's memo of June 18 concerning the loss of the lodgepole pine crop overwinter, he suggests that the most susceptible crops were those being pushed for growth late into the fall, and asks what must be done culturally to be able to harden off crops earlier. In the short term, we should certainly consider reducing the growing density of lodgepole pine crops in order to achieve required mass earlier in the year. Although some tests with other species qualify more as observations than trials, the consensus is that quality will be enhanced, culls reduced and roughly the same yield per area will be achieved when there are about 150-160 trees per block rather than 240 or 198. Since the current lodgepole pine crop is still small, please initiate the following trial as soon as possible.

Experimental Design

Each treatment will consist of at least 9 blocks within one seedlot currently sown in PSB 211 Styroblocks. Blocks chosen for the trial should contain as few blank cavities as possible. Please identify the blocks within each treatment and record the number of blanks in each block other than those designated.

Treatments

Treatment 1. Control. Standard 211 blocks with as few blanks as possible, tightly packed.

2. Standard 211 blocks spaced approximately 10 cm between blocks on the long dimension.

3. PSB 211's tightly packed, but with all seedlings removed from rows 4 and 9.

4. PSB 211's spaced 10 cm between blocks, and with all seedlings removed from rows 4 and 9.
5. PSB 211's tightly packed, but will all seedlings removed from rows 3, 5, 8 and 10.

6. PSB 211's spaced 10 cm between blocks, and with all seedlings removed from rows 3, 5, 8 and 10.

7. PSB 211's tightly packed, but with cull and below average seedlings removed to match the number removed in Treatments 3 & 4, i.e. the 40 smallest trees removed.

8. PSB 211's spaced 10 cm between blocks, and with cull and below average seedlings removed to match the number removed in Treatments 3 & 4, i.e. the 40 smallest trees removed.

9. PSB 211's tightly packed, but with cull and below average seedlings removed to match the number removed in Treatments 5 & 6, i.e. the 80 smallest trees removed.

10. PSB 211's spaced 10 cm between blocks, and with cull and below average seedlings removed to match the number removed in Treatments 5 & 6, i.e. the 80 smallest trees removed.

Observations Required

At the beginning of the trial, identify each block and record the number of blanks other than those designated. Also record the number of trees in each identified block that die from disease or other causes during the growing season.

At the end of the growing season, two blocks per treatment should be forwarded to Saanich Test Nursery for individual morphological description of all seedlings. The remaining blocks should be assessed at lift for the number of plantable and cull seedlings per block in each treatment. A random sample from each treatment should be processed for morphological description.

If there is any question or problem with the amount of work involved, please advise.

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Agrologist

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