SX 85124N

SHELTERCONE SEEDING TRIAL IN THE
GOLDEN DISTRICT

Working Plan
1984

B. Salmon
REPORT SX 85124 N

INTERIM
FINAL
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TITLE SHELTERCONE SEEDING TRIAL IN THE GOLDEN DISTRICT

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Brett Salmon (Typed)

Report & Distribution approved by: R.B. McNaughton (Signature)
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(a) Wide Distribution
(b) Limited
   (i) Internal - Branch only
   (ii) External - Designated
   (iii) Ministry only

COPIES TO

Silviculture Branch
Nelson Region
Golden District
Evans products Golden

Approved:
Manager - D.L. Oswald (Signature)
D.L. Oswald (Typed)
SHELTERCONE SEEDING TRIAL IN THE GOLDEN DISTRICT

Objectives: This seeding trial has been proposed to investigate the potential for sheltercone seeding in the Golden District. The response in sheltercone viability to Spring versus Fall seeding, different methods of site preparation, and variations in the biogeoclimatic characteristics from one site to another shall be monitored.

Procedure:

1. Site Description

<table>
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<th>C.P.</th>
<th>Blk.</th>
<th>Area (ha)</th>
<th>Zone</th>
<th>Assoc'n Number</th>
<th>Edaphic Position</th>
<th>Soil Type</th>
<th>Site Treatment Type</th>
<th>Year</th>
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2. Seed
A lodgepole pine (Pinus contorta Dougl-ex Loud.) and Douglas-fir (Pseudotsuga menziesii Mirb Franco) mixture is proposed for these sites, with a species density of 70:30 pine to Douglas-fir. The lodgepole pine seedlot will be S.L. #2485 and the Douglas-fir seedlot will be S.L. #2052.

The actual seed requirement will be as follows:

Total Seed:
(38 ha x 2000 cones/ha) x 3 seeds/cone = 228,000 seeds

Spring or Fall seed requirement:

Pine 70% (19 ha x 2000 cones/ha) x 3 seeds/cone = 79,800 seeds
79,800 seeds ÷ 330 seeds/gram = 242 gm

Douglas-fir 30% (19 ha x 2000 cones/ha) x 3 seeds/cone = 34,200 seeds
34,200 seeds ÷ 105 seeds/gram = 325 gm

Therefore, allowing an extra 10% to cover for seed being damaged and/or lost, the seed withdrawal will be - 253 gms of lodgepole pine seed and 352 gm Douglas-fir seed.
The seed used in the Spring will be stratified at the Seed Centre before it is delivered and the Fall seed will not require stratification.
3. Seeding Method
Due to the research nature of this project inter-spot spacing will not
be considered critical, however, a target stocking level of 2000 spots
per hectare will be established. Two different sizes of sheltercone
will be used in order to determine if cone size is significant to seed
germination. Each cone will be placed in a 400 cm² crevice of mineral
and/or organic soil.

4. Sampling
Method - The areas will be systematically sampled using line plots.
A minimum of 100 cones will be sampled per treatment unit.
Cones containing pine seed will be identified with plastic
flags and cones containing Douglas-fir seed will be
identified with short painted stakes.

Timing - The cones seeded in the Spring will be sampled approximately
1 month, 2 months and 4 months after establishment. The
Fall seeded cones will be sampled the following June, August
and October. Each plantation will then be sampled annually
for the next three years.

Rodent
Survey - A rodent survey will be conducted on all of the cutblocks to
be seeded before treatment is initiated.

5. Administration
Evans Products Co. Ltd. will be responsible for the initiation of this
seeding trial, seeding and related administration, field sampling and
final reports which will be submitted to the Ministry of Forests. The
Ministry for its part shall ensure that all reasonable costs to Evans
are reimbursed through Section 88 of the Forest Act.