



FOREST RESEARCH BRANCH



PROGRESS REPORT

TRIALS OF SEED SPOT METHODS WITH FIVE CONIFEROUS SPECIES IN
A NON-REPRODUCING BURN ON THE LITTLE PABOS RIVER, GASPE PENINSULA,
FOREST SECTION B-2
(Project Q-101)

by
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Quebec District
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PROGRESS REPORT

TRIALS OF SEED SPOT METHODS WITH FIVE CONIFEROUS SPECIES IN A NON-REPRODUCING BURN ON THE LITTLE PABOS RIVER, GASPE PENINSULA, FOREST SECTION B-2

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INTRODUCTION

During the period June 9 to June 12, 1964 an establishment survey was made of the seed spots sowed in 1961, 1962 and 1963 on the Little Pabos River limit of Gaspesia Pulp and Paper Company. André Demers^{2/} described the soil profile while I mapped the seed spots assisted by two labourers hired in the nearby settlement of Pellegrin.

FIELD PROCEDURE

All the spots were examined and mapped as being stocked or unstocked. See annexed map and diagrams.

A soil profile was dug near each of the five blocks and every soil horizon was described and sampled.

DESCRIPTION OF SOIL PROFILES

Block I :

- A₀ - 2 to 2.5 inches of organic matter and charcoal.
- A₂ - 1 to 1.5 inches of ashy grey silt clay loam.
- B₁ - 4 to 5 inches of reddish brown clay loam with few shale fragments.

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- B₂ - 4 to 5 inches of light brown loam with few shale channers.
- B₃ - 2 to 3 inches of very light brown loam with many shale channers.
- C - A very channery sandy loam that contains many layered disintegrated shale fragments.

Block II :

- A₀ - 2 to 3 inches of organic matter and charcoal.
- A₂ - 0 to 3 inches of ashy grey silt loam with a few light grey shale channers.
- B₁ - 0 to 1.5 inches of reddish brown silt loam with many shale channers.
- B₂ - 5 to 6 inches of light brown loam with a few shale channers.
- B₃ - 3 to 4 inches of very light brown clay loam with many shale channers.
- C - A very channery clay loam that contains many layered disintegrated shale fragments.

Block III :

- A₀ - 1 to 1.5 inches of organic matter and charcoal.
- A₂ - 0 to 1 inch of ashy grey silt clay loam.
- B₁ - 3 to 4 inches of reddish brown loam with a few water-rounded stones and a few shale channers.
- B₂ - 4 to 5 inches of light brown loam with many water-rounded stones and many shale channers.
- B₃ - 3 to 4 inches of very light to light brown clay loam with many water-rounded stones and many shale channers.

- C - A very channery loam that contains many layered disintegrated shale fragments.

Block IV :

- A₀ - 1 to 1.5 inches of organic matter and charcoal.
A₂ - 0 to 5 inches of grey silt loam.
B₁ - 4 to 5 inches of reddish brown sandy loam with a few shale fragments.
B₂ - 2 to 3 inches of light brown sandy loam with a few shale fragments.
B₃ - 4 to 5 inches of very light brown loam with a few shale channers.
C - A loam with a few water-rounded stones and many shale channers.

Block V :

- A₀ - 0.5 inch of organic matter and charcoal.
A₂ - 0 to 0.5 inch of light grey sandy loam.
B₁ - 2 to 3 inches of reddish brown sandy loam with a few shale fragments.
B₂ - 2 to 3 inches of light brown clay loam with many shale fragments.
B₃ - 4 to 5 inches of very light brown clay with many shale channers.
C - A very channery clay loam that contains many layered disintegrated shale fragments.

The texture of each mineral horizon has been defined by a mechanical analysis.

OBSERVATIONS

In 1964, the 1961 general percentage of stocked spots was sensibly the same as the one of 1962 and of 1963. See tables 1, 2 and 3.

Treatment T2 gave the best results for the 1961 spots, as treatment T3 did for both the 1962 and the 1963 spots. The 1961, 1962 and 1963 spots favoured Norway spruce, Jack pine and balsam fir, respectively.

WORK FOR 1965

Same work that was done in the spring 1964, with the exception of soil profiles.

Table 1. Per Cent of 1961 Spots Stocked in 1964, by Species and Treatment.

Treatments	wS	bS	nS	jP	bF	By Treatment
Control (T ₁)	4	1	27	13	1	9
Mineral Soil (T ₂)	35	50	49	51	18	41
Min. Soil Scarified (T ₃)	33	27	56	49	11	35
Min. Soil & Org. Matter (T ₄)	15	23	50	52	10	30
Furrow (T ₅)	26	23	38	32	15	27
By Species	23	25	44	39	11	General = 28%

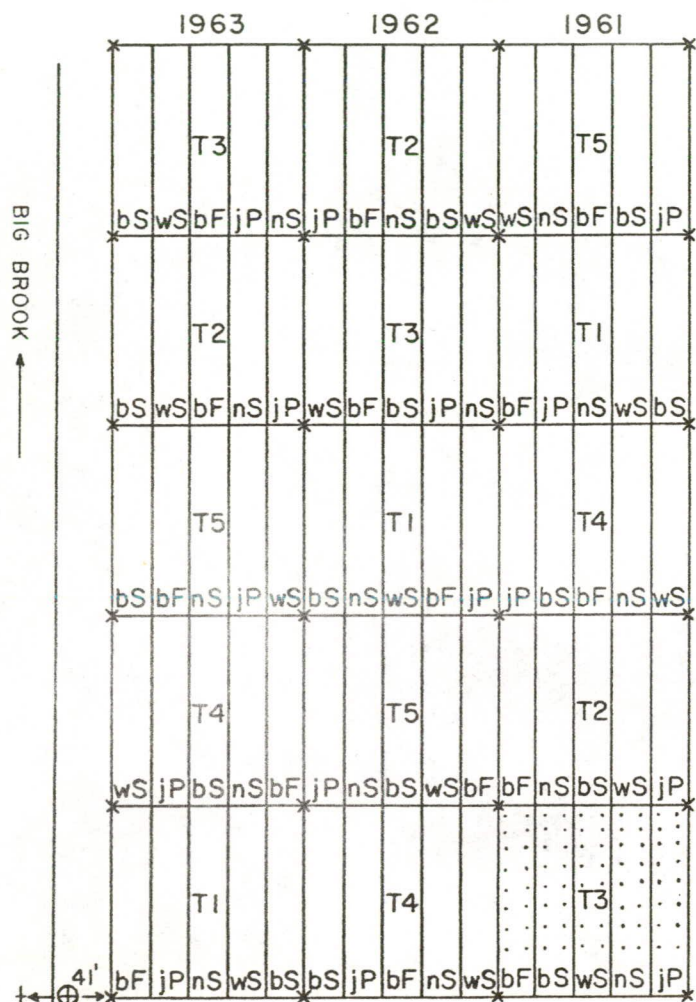
Table 2. Per Cent of 1962 Spots Stocked in 1964, by Species and Treatment.

Treatments	wS	bS	nS	jP	bF	By Treatment
Control (T ₁)	8	5	24	20	2	12
Mineral Soil (T ₂)	37	37	15	43	30	32
Min. Soil Scarified (T ₃)	53	47	45	58	38	48
Min. Soil & Org. Matter (T ₄)	23	19	39	49	18	30
Furrow (T ₅)	45	22	20	35	60	36
By Species	33	26	29	41	30	General = 32%

Table 3. Per Cent of 1963 Spots Stocked in 1964, by Species and Treatment.

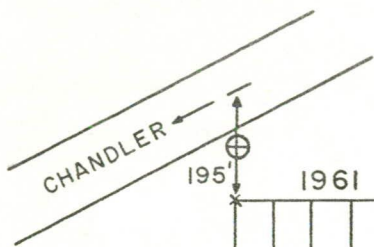
Treatments	wS	bS	nS	jP	bF	By Treatment
Control (T ₁)	6	3	25	2	10	9
Mineral Soil (T ₂)	20	24	27	24	82	35
Min. Soil Scarified (T ₃)	35	20	53	36	73	43
Min. Soil & Org. Matter (T ₄)	19	20	40	13	44	27
Furrow (T ₅)	28	38	24	14	94	40
By Species	22	21	34	18	61	General = 31%

BLOCK I

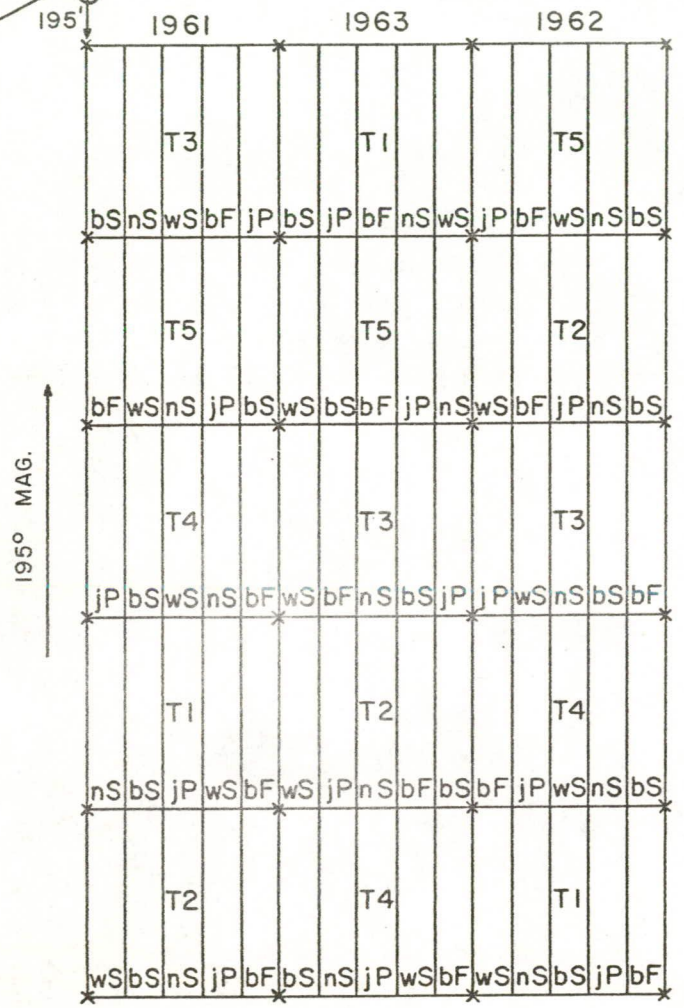


LEGEND

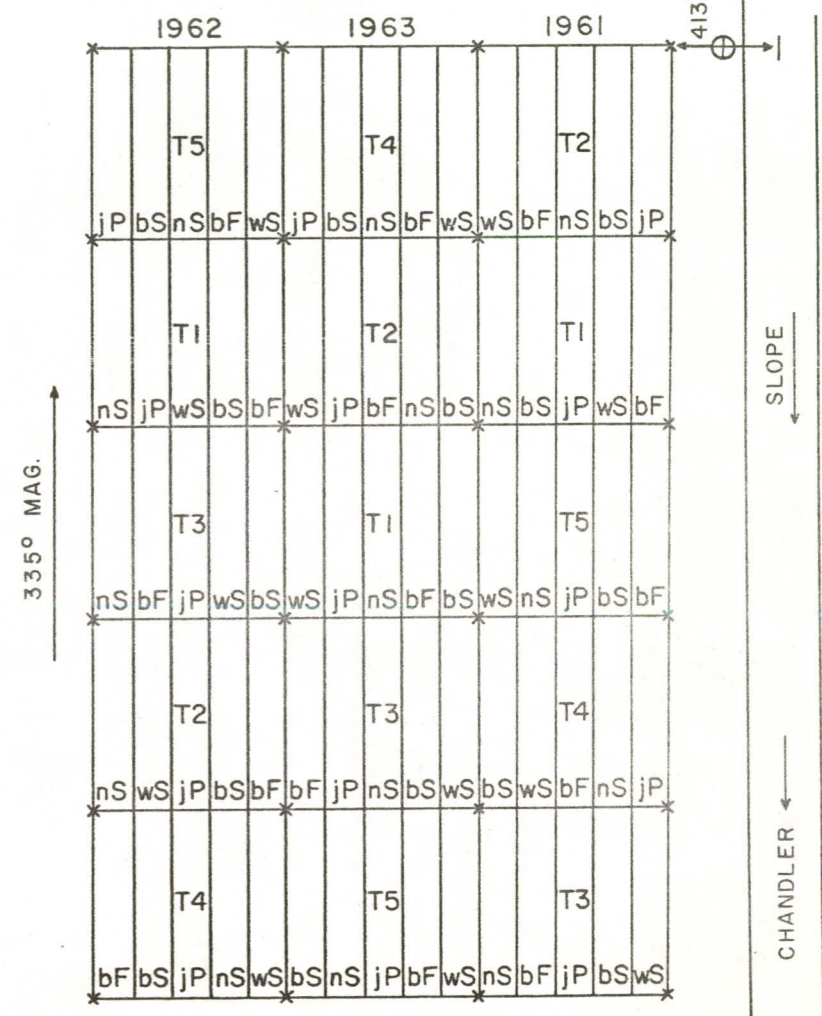
- T1 - CONTROL
- T2 - MINERAL SOIL
- T3 - MINERAL SOIL SCARIFIED
- T4 - MINERAL SOIL AND ORGANIC MATTER MIXED
- T5 - FURROW
- bS - BLACK SPRUCE
- wS - WHITE SPRUCE
- nS - NORWAY SPRUCE
- bF - BALSAM FIR
- jP - JACK PINE
- ⊕ - TIE POST
- X - CREOSOTED PICKET
- - SEED SPOT

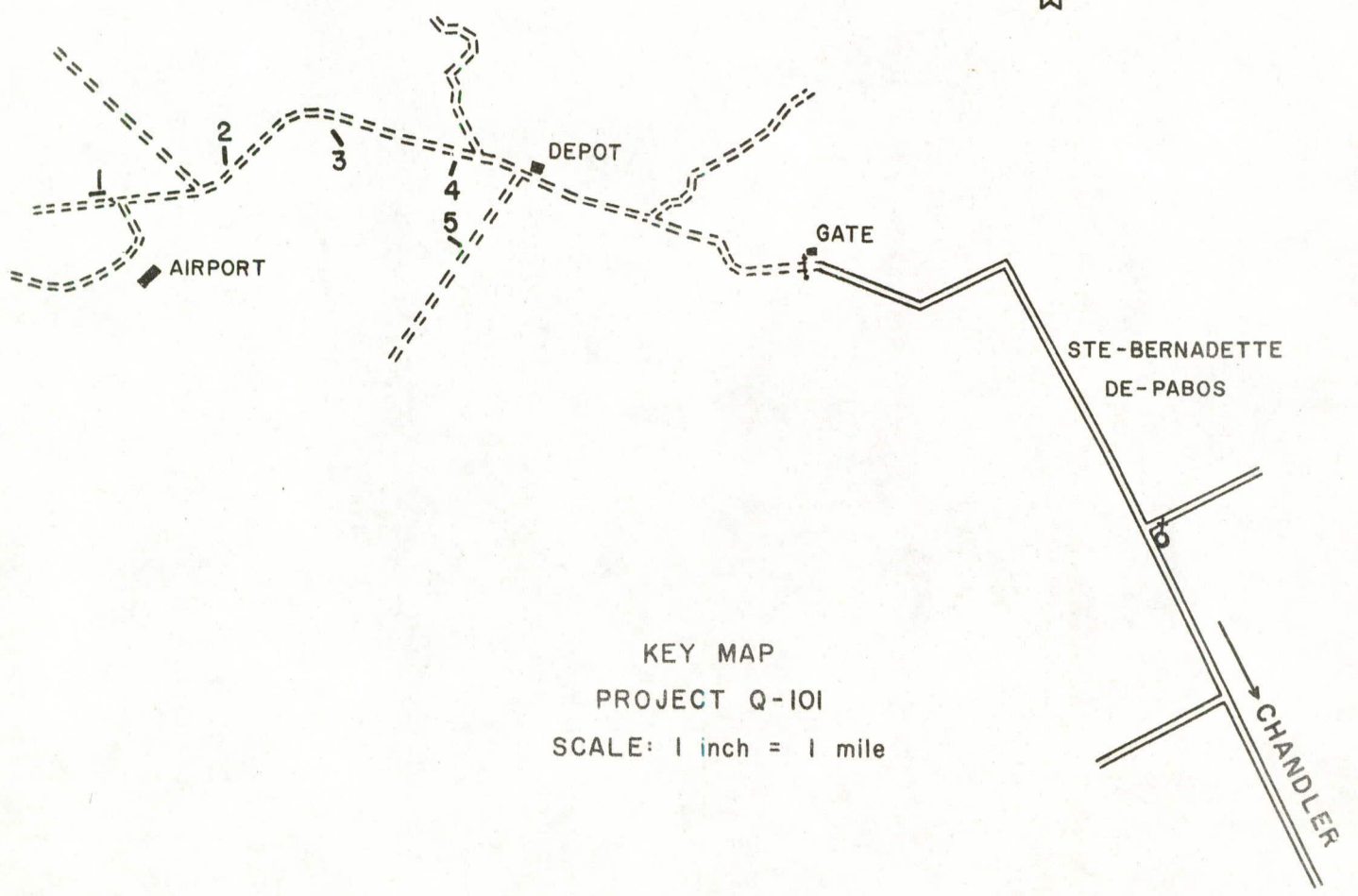


BLOCK II



BLOCK III





KEY MAP
PROJECT Q-101
SCALE: 1 inch = 1 mile

