

INTERIM REPORT

SX 8003

TRIAL OF PELTON
GROWN MUCPACKS

Silviculture Branch
82-03-22



Province of British Columbia
Ministry of Forests

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INTERIM REPORT

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SILVICULTURE TRIALS and TESTS

REPORT SX 8003

INTERIM

FINAL

DATE 82.03.24

TITLE Trial of Pelton Grown Mud Pack

Report Prepared by:

P.E. Robson (Signature)

P.E. Robson (Typed)

Report & Distribution Approved by:

R.G. Brown (Signature)

R.G. Brown (Typed)

- (a) Wide Distribution
- (b) Limited
 - (i) Internal - Branch only
 - (ii) External - Designated
 - (iii) Ministry Only

COPIES TO

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Silviculture Officers, All Regions
Pelton Reforestation Ltd., Maple Ridge
District Managers, - Horsefly, Vernon, Golden, Morice.
Silviculture Branch Library

Approved:

Manager

(Signature)

R.C. Jones

(Typed)

R.C. Jones

1. Trial Number

SX 8003, Trial of Pelton grown mudpacks.

2. Location

<u>Region</u>	<u>District</u>	<u>Locality</u>
R	Morice	Morice River
K	Vernon	Sitkum Creek
N	Golden	Paul Creek
C	Horsefly	Winkley Cr. & Sellers Cr.
G*	Prince George East	Willow River

*This project was abandoned after the first year because of very heavy damage by snowshoe rabbits.

3. Objective

To compare the survival and growth of 1+0 Interior spruce and lodgepole pine, greenhouse grown and mudpacked by Pelton Reforestation, with that of PSB 211 of the same seedlots grown in Forest Service nurseries.

4. Trial Stock

<u>Reg</u>	<u>Sp.</u>	<u>Seedlot</u>	<u>Stock Type</u>	<u>Nursery</u>	<u>Average Dimensions*</u>		
					<u>Top Ht. cm</u>	<u>Root Collar Diam., mm.</u>	<u>Top: Root Ratio</u>
R	Sw	1930	PSB 211	Sry	9.5	1.6	1.8
			MP 214	Pelton	17.0	2.4	3.7
K	P1	2314	PSB 211	Sry	18.8	-	-
			MP 214	Pelton	12.2	-	-
N	P1	2611	PSB 211	Skim	20.4	2.4	1.7
			MP 214	Pelton	7.9	-	-
C	P1	2308	PSB 211	Vernon	15.8	2.4	2.0
			MP 214	Pelton	10.1	-	-

*Based on nursery data or field measurements, as available.

5. Planting Dates

<u>Region</u>	<u>Planted</u>
Prince Rupert	80/05/5-11
Kamloops	80/04/8-22
Nelson	80/06/1-2
Cariboo	80/06/16

All were assessed at the end of the first and second growing seasons.

Final assessment is due after five growing season, i.e. in the fall of 1984.

6. Site Factors

<u>Reg.</u>	<u>Location</u>	<u>Sub-Zone</u>	<u>Elev.</u> <u>m</u>	<u>Aspect</u>	<u>Soil</u> <u>Type</u>	<u>Moisture</u>	<u>History</u>	
R	Morice R.	Classification scheduled for 1982						
K	Sitkum Cr.	ICHa	730	S	-	Mesic	B.69	
N	Paul Cr.	MSa	1350	Neut.	Silt loam	Submesic	L.77-8	
C	Winkley Cr.	ICHb	760	Neut.	Gravel loam	Mesic	L.78,B.79	
C	Sellers Cr.	ICHb	900	Sw	Sandy clayloam	Mesic	L.77,B78	

7. Results

Table 1: Condition of Plugs and Mudpacks After One & Two Growing Seasons, by Species, Seedlot, and Location

Reg.	Location	Sp.	Seed Lot	Stock Type	Condition % *												Survival %	
					After 1 Year			After 2 Years						1st year	2nd year			
					G	F	P	D	G	F	P	D						
R	Morice R.	Sw	1930	PSB 211 MP 214	30	68	1	1	-	-	-	-	-	99	90			
					4	83	6	7	-	-	-	-	-	93	89			
K	Sitkum Cr.	P1	2314	PSB 211 MP 214	96	0	1	3	94	1	1	4	97	96				
					86	2	3	9	83	1	5	11	91	89				
N	Paul Cr.	P1	2611	PSB 211 MP 214	2	90	4	4	16	75	5	4	96	96				
					9	83	7	1	33	63	3	1	99	99				
C	Winkley Cr.	P1	2308	PSB 211 MP 214	79	17	2	2	45	43	9	3	98	97				
					44	50	4	2	29	53	15	3	98	97				
C	Sellers Cr.	P1	2308	PSB 211 MP 214	61	31	7	1	34	63	1	2	99	98				
					17	45	31	7	9	69	18	4	93**	96				

*Condition:

Good - without visible defect or with one so slight as not to effect the growth rate.

Fair - with some conspicuous defect that the tree is likely to outgrow.

Poor - so seriously damaged that the tree is unlikely to survive or develop into a merchantable tree.

Dead

**As tallied.

7. Results (cont'd.)

Table 2: Heights at Planting & After One & Two Growing Seasons, by Species, Stock Type, Seedlot, & Location

Reg.	Location	Sp.	Seed Lot	Stock Type	At Planting	Total Height, cm		Increment, cm		Total
						After 1 Year	After 2 Years	First Year	Second Year	
R	Morice R.	Sw	1930	PSB 211	10	17	20	7	3	10
				MP 214	17	20	3	2	5	
K	Sitkum Cr.	Pl	2315	PSB 211	19	21	37	2	16	18
				MP 214	12	15	28	3	13	16
N	Paul Cr.	Pl	2611	PSB 211	20	27	30	7	3	10
				MP 214	8	13	16	5	3	8
C	Winkley Cr.	Pl	2308	PSB 211	12	22	35	10	13	23
				MP 214	10	17	28	7	11	18
C	Sellers Cr.	Pl	2308	PSB 211	13	23	35	10	12	22
				MP 214	10	17	25	7	8	15

8. Comments

- (a) Second year survival at all locations was very satisfactory, no doubt influenced by favorable weather in both growing seasons.
- (b) Such differences as there were in survival between plugs and mudpacks were slight.
- (c) Total increment was, without exception, greater for plugs than for mudpacks.

KEY MAP:
PLOT LOCATIONS
Sx 8003

