

JACK PINE SEEDLINGS GROWN IN
QUEBEC TUBES AND OTHER CONTAINERS

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A preliminary study of container-grown jack pine (*Pinus banksiana* Lamb.) seedlings showed that root spiralling was a problem in Quebec tubes (Fig. 1A). Seedling quality was highest in styrobloc-8 and lower, but similar, in tubes and Roottrainer "Hillsons" at 4, 6 and 10 months (Fig. 1B).

In a second study, jack pine seedlings grown 4-6 months in several modifications of the Quebec tube were compared with those grown in regular tubes and styrobloc-8s. Two or four cords, 1.6 mm and 4.8 mm thick, reduced but did not eliminate root spiralling when fixed to the inner surface of the tubes with smooth transparent tape (Fig. 2). Although root spiralling was least in tubes with four 4.8 mm cords, differences in thickness and two versus four cords were not always statistically significant. No significant differences in quality were found between seedlings in modified or regular tubes (Fig. 3). Plant quality of all tubed seedlings was significantly less than that of plants grown in styrobloc-8s.

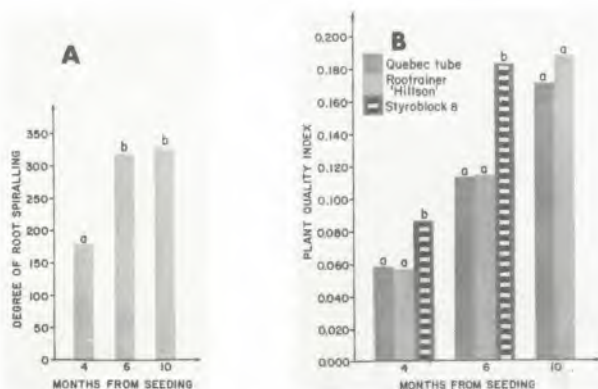


Figure 1. After 4, 6 and 10 months, (A) degree of root spiralling of seedlings grown in Quebec tubes, and (B) plant quality of seedlings grown in three container types. Mean separation by Duncan's multiple range test, 5% level.

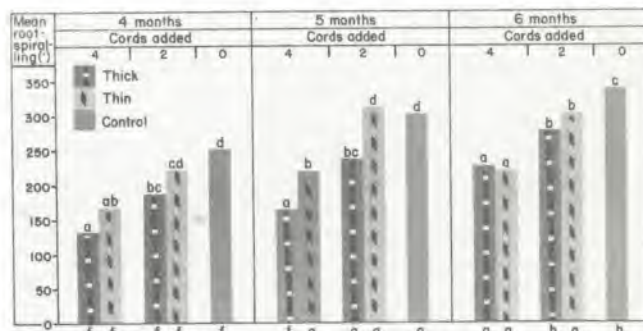


Figure 2. Degree of root spiralling of seedlings grown in modified and regular Quebec tubes. Mean separation within an age group by Duncan's multiple range test, 5% level, letters abcd; between age groups of a treatment, letters fgh.

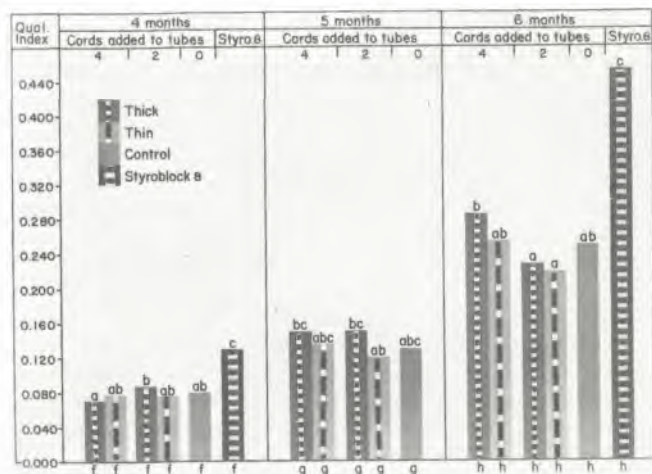


Figure 3. Plant quality of seedlings grown in modified and regular Quebec tubes and in Styrobloc 8s. Mean separation within an age group by Duncan's multiple range test, 5% level, letters abc; between age groups of a treatment, letters fgh.

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