



# Timber Talks



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## HOW MUCH SEED DO YOU NEED?

No. 2

Opinions differ on whether seeding or planting is most practicable for reforestation. Comparison is made on procurement of seed or seedlings, seedling survival and development and on cost. A major problem of proponents of seeding is how much seed is required. In 1962 an investigation was undertaken to determine the number of white spruce seeds required for satisfactory restocking.

White spruce seed, tested viability 70 per cent, was sown on mineral soil and on undisturbed forest litter on three vegetative sites near Prince George, B. C. The number of germinants and their survival until 1965 is shown in the Table.

Site	No. Germinants and Seedlings - Per Cent of Seeds Sown									
	Germinants		Seedlings - Per Cent Sown							
	1962		1962		1963		1964		1965	
	Min. Soil	Litter	Min. Soil	Litter	Min. Soil	Litter	Min. Soil	Litter	Min. Soil	Litter
Alluvium	47	5	35	.35	21	.20	15	.12	14	.1
Aralia-Dryopteris	49	4	34	.3	21	.2	17	.15	16	.1
Cornus-Moss	37	3	20	.13	14	.12	13	.11	13	.11

Better germination occurred on moist alluvium and aralia-dryopteris sites than on dry cornus-moss sites. Mineral soil was more favourable for seed germination and seedling survival than undisturbed litter. On exposed mineral soil, seedling mortality is slightly greater on moist sites than on dry sites.

If it is accepted that a 4-year-old seedling is satisfactorily established, it would require approximately 7 seeds for one established seedling on mineral soil and 1,000 seeds for each seedling on undisturbed litter. To restock one acre with 1,000 seedlings would require 7,000 properly distributed seeds (0.03 lbs.) if sown on mineral soil and 1,000,000 seeds (4.2 lbs.) if sown on undisturbed litter.