

*Plantation Cleaning and Thinning.*

The cleaning and thinning of the older-age classes in the plantations carried out during the year was a distinct forward move in the forestry history of the Dominion, and served a twofold purpose, for not only will this treatment greatly benefit the plantations by diminishing the fire-hazard, reducing the liability to disease and insect attack, increasing the annual increment and improving the final crop, but for several months the work provided employment for a large number of labourers recruited from the ranks of the unemployed. Cleaning in Rotorua Region was completed on a total area of 11,807 acres as follows: Whakarewarewa Plantation, 5,370 acres; Waiotapu Plantation, 4,516 acres; Kaingaroa Plantation, 1,921 acres.

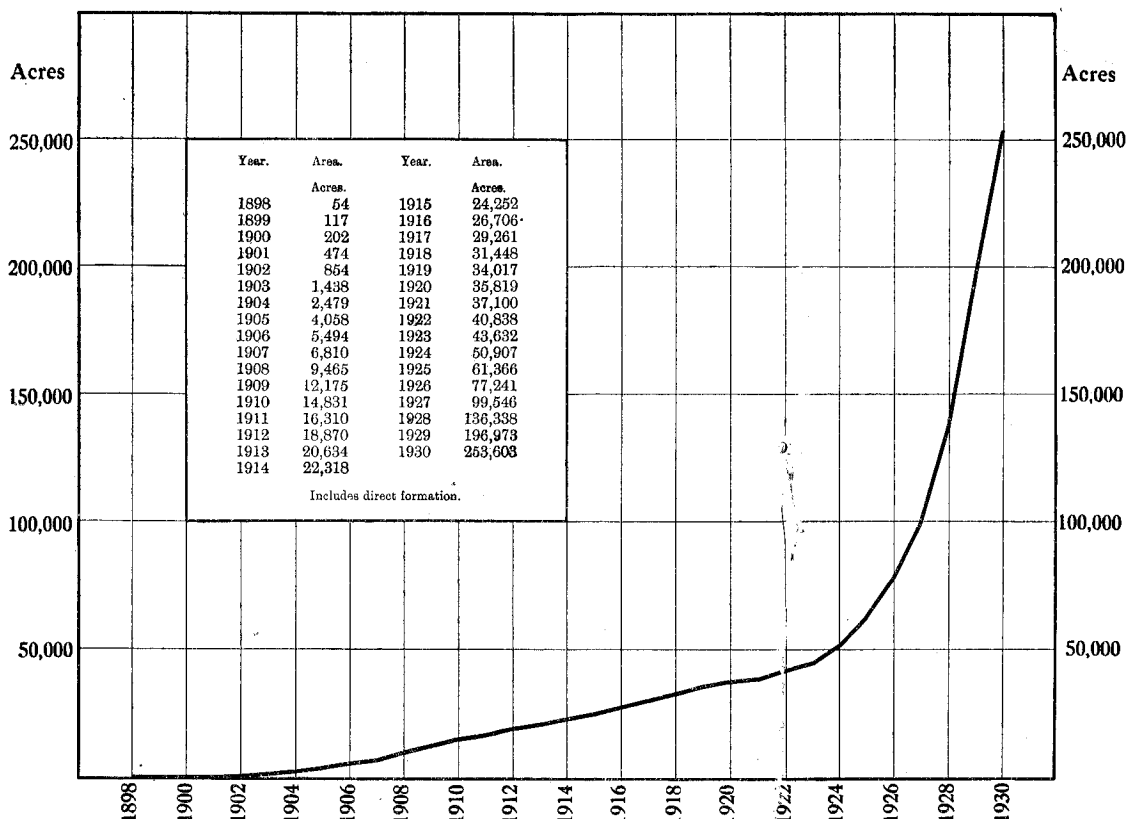
A total area of 3,194 acres of twenty- to twenty-one-year-old trees were lightly or partially thinned, the malformed and totally suppressed trees being removed; the average percentage thinned per acre ranging from 27 to 38 per cent. Fifth line thinning was also carried out over an area of 71 acres, while a further area of 14 acres in Whakarewarewa Plantation was thinned by contract. This operation consisted of selecting the final-crop trees at about 16 ft. apart and felling the four trees closest to the chosen trees. An area of 2,654 acres at Hanmer Springs Plantation was cleaned and lightly thinned, and at Balmoral Plantation 226 acres were similarly dealt with. The cleaning was carried to a height of 7 ft., all-age classes over ten years being treated. A total area of 17 acres at Hanmer Springs was experimentally thinned and the logs cut into 8 ft. lengths for disposal as firewood.

At Dusky Hill and Conical Hills Plantations (Otago) fifth-line thinning was carried on for six months, the areas treated being approximately 561 acres and 897 acres respectively. A portion of the latter plantation still remains for treatment. At Naseby Plantation the thinning of 7 acres was carried out.

Summarizing these figures gives the following result:—

		Acres cleaned.	Acres thinned.
North Island Plantations	..	11,807	3,279
South Island Plantations	..	4,345	1,482
		<u>16,152</u>	<u>4,761</u>

The high cost of thinning and the lack of a convenient market owing to the location of the older plantations have hitherto severely handicapped the Service in undertaking this work, except on an experimental scale, nor can it be said that an early solution of this problem is in sight, but the establishment of a wood-pulp industry would probably go far towards absorbing this forest-produce.



NOTE.—The figures quoted for the years prior to 1921 may require minor corrections as it result of a detailed investigation which is now in hand.

GRAPH 3.—PROGRESS OF STATE AFFORESTATION FROM YEAR OF COMMENCEMENT.