

Fire Protection and Maintenance.

The well-distributed rainfall during the summer months reduced the fire hazard to a minimum. The maintenance and establishment of fire-breaks was attended to, and patrol men and lookout men engaged. General maintenance of plantations and repairs to fences and buildings were carried out. The cost per acre for these operations is shown in the following table:—

Plantation.	Area.	Fire Protection.	Maintenance.	Total.
	Acres.	s. d.	s. d.	s. d.
Whakarewarewa	8,037	7 7	2 6	10 1
Waiotapu	7,010	4 8	4 11	9 7
Kaingaroa	55,143	0 11	1 10	2 9

Equipment.

Two Fordson tractors were added to the equipment at Kaingaroa, and a small Beeman tractor at Rotorua Nursery. The latter so far has not proved a success, owing mainly to difficulty in control.

Aboretum.

The aboretum area was ploughed, and a portion fenced in, cultivated, levelled, and used for line-sown nursery stock.

Proposals for 1927-28.

1. Establishment of 15,000 acres of new plantations at Kaingaroa.
2. Direct formation of 3,600 acres by power drilling and spot-sowing.
3. Topographic survey and layout of planting areas for 1928.
4. Raising of 20,000,000 trees.
5. Development of improved methods in nursery and plantation practice, and fire protection measures.
6. Experimental planting—(a) with mixtures of conifers and broad-leaved species; (b) at various spacings.
7. Installation of small steam sterilizing plant at Rotorua Nursery to control damping-off and other diseases in trayed trees.
8. Removal of central camp at Kaingaroa to Wairapakau; establishment of new plantation nursery there to provide planting stock for Run 58.

WELLINGTON FOREST CONSERVATION REGION.

Karioi Plantation.

The acquisition of 33,000 acres of poor tussock-covered country at Karioi inaugurated the first State forestation project, other than experimental plantings, in this region. The favourable soil and climatic conditions, the easy nature of the country, and the accessibility of all portions to the Main Trunk Railway, which traverses the western corner, make the area well suited for a large scale commercial plantation. The topographic survey, preliminary to the layout of planting-blocks, compartments, fire-breaks, and roads was completed during the year.

Sand-dune Reclamation.

The experimental work in connection with the reclamation of the sand-dunes at the mouth of the Rangitikei River was continued. A total length of 117 chains of sand-arresting fences, constructed of manuka, was erected in wind-channels at an average cost of 18s. 6½d. per chain. The upright, non-recoverable manuka-scrub fence has proved to be the most suitable for this work, as it is cheap and easy to construct, is flexible, and becomes crowned quickly. Marram was planted on 372 acres, trees on 130 acres of fixed dunes, and flax and toetoe on 9 acres. The cost of the marram-planting, including cutting, carting, and planting, was £2 9s. 6d. per acre. The further draining of parts of the area necessitated the construction of 230 chains of new drains and the clearing of 135 chains of the main Puki drain.

The small nursery at Tangimoana supplied 91,300 transplants for the planting operations. Seedlings to the number of 140,000 were lined out for the 1927 planting, and 20 lb. of insignis pine and 151 lb. of *P. muricata* were sown to supply stock for 1928.

Proposals for 1927-28.

1. Establishment of 1,300 acres of plantation at Karioi.
2. Establishment of a plantation nursery at Karioi, and sowing of 320 lb. of seed.
3. Continuation of sand-dune reclamation work, including the planting of 400 acres of marram, 220 acres of trees, and 100 acres of flax (phormium).