

(4) *Other Privileges*.—Other privileges operative at the end of the year were: Sawmill-site leases, 15; tramway and road licences, 64; housing-site leases, 5; miscellaneous, 5.

(5) *Water Conservation*.—Protection of water catchments by maintaining and extending their vegetative cover—whether this consist of trees or of shrubby plants—is of essential importance for water as well as soil conservation. Forests therefore play a very valuable part in conserving water-supplies and in regulating their rate of flow in connection with hydro-electric, irrigation, and municipal water schemes. A number of State hydro-electric works draw their water-supplies from State forests, while numbers of small private schemes are in the same position. Several town water-supplies come from State forest land, the largest scheme being that of Wellington City—though many such supplies are from special public reserves vested in the control of the local bodies concerned. The Forest Service has therefore a responsibility to protect such water catchment areas from fire, soil erosion, and plant damage caused by forest pests.

(6) *Nassella Tussock Control Reserves*.—As explained in Chapter VIII under "Legal," the Legislature has determined that where a *Nassella tussock* Board or County Council considers it desirable, the Minister of Lands may acquire any tussock-infested land as Crown land subject to the Small Farms Act, 1932-33 (now Land Act, 1948). Furthermore, with the concurrence of the Commissioner of State Forests the Minister of Lands may declare the land or part of it a *nassella tussock* control reserve. It would appear that this course will be adopted only respecting required land which is so heavily infested that agricultural methods of controlling the weed would be ineffective. *Nassella tussock* control reserves are to be administered by the Forest Service as if they were State forests.

The Forest Service has accepted no responsibility for the efficacy of tree-planting as a method of control, and it is not anticipated that trees will actually choke out the tussock in many cases. There is some evidence, however, that they will entrap a proportion of its high-flying seed-heads, and in this way prevent the spread of the seed down wind on to uninfested land. It will be obvious that trees with a rapid height development are required, and that the early planting of tactically-placed strips having regard to topography and prevailing wind direction is advantageous. Unfortunately for the theory that *nassella tussock* can be controlled or exterminated by tree-planting, the tussock reaches its maximum development in localities which are suited only to inferior tree growth.

The administration and intensive management of small scattered areas will constitute a departure from the long-established Forest Service policy of confining intensive forestry to reasonably large areas which are economically capable of carrying the burden of adequate fire protection and general overhead. *Nassella tussock* control by tree-planting, however, is a special-purpose forestry use of land, and the difficulties involved in the management of small isolated areas, though regrettable, will be unavoidable. At the close of the year the first area selected, 500 acres in extent, had been purchased by the Lands Department and arrangements were in train for the commencement of tree planting in the coming winter.

CHAPTER IV—PUBLIC AND PRIVATE FORESTRY

GENERAL

Functions of the Forest Service which fall under the heading of public and private forestry are—

- (a) To encourage the extension of forests—both private and local body—on to land areas unsuitable for farm use; and
- (b) To encourage the protection and management, on proper lines, of existing forests. Protection implies maintaining the forests in a thrifty and hygienic condition by preventing, as far as is humanly possible, all forms of disease or other damage, whether from fire, insects, fungi, or other causes.