

39. *Tending of Exotic Forests.*—Release cuttings covered 1,389 acres, low pruning 6,743 acres, and high pruning 1,983 acres. A total of 1,245 acres was thinned and 451 acres clear-felled, this latter area including salvage work over 98 acres damaged by gales. In addition, a sawmilling company carried out salvage work on a further 30 acres of wind-thrown areas.

40. *Indigenous Silvicultural Policy.*—The charge has been laid that, in the past, the Forest Service has done nothing for the good and betterment of the indigenous State forests beyond protecting them against fire and placing certain forests "under management." It is desired to stress, however, that forest protection is a *sine qua non* of sound silviculture. It may be termed the first phase of silviculture, though it must also be an enduring adjunct of silviculture.

Turning to silviculture proper, the Service has reserved seed trees from felling on a number of kauri and beech forests, and has acquired for dedication to forestry several considerable tracts of land bearing kauri and beech regeneration and advanced young growth. Moreover, hundreds of acres of worked podocarp forests have been interplanted to shade-bearing exotic species, which do not include any pines. One promising possibility investigated during the past year is the use of exotic pines on open places and forest margins as temporary nurse-trees for natural seedlings of indigenous trees. It is feasible that the pines are proving more effective nurse-trees than manuka, by suppressing dense undergrowth and, following low pruning and later thinning, creating ideal conditions as to light and shelter for the germination and development of indigenous seeds. If this proves to be the case, removal of the pines will leave excellent areas of advance growth which will restock interior openings and extend the indigenous forests outward on to previously unforested land.

In this and in other ways the Service is on the *qui vive* to improve and extend the indigenous forests until the results of the research programme referred to in Chapter X enable a more effective policy to be instituted.

41. *Exotic Silvicultural Policy.*—During the economic depression of the "thirties," employment for large numbers of relief workers was provided in the State exotic forests, but unfortunately this work consisted almost entirely of the planting of new areas. Enormous areas of forest ready for thinning were neglected. Rehabilitation plans for the post-war period were drawn up in 1945 providing for the thinning, commencing in 1946, of 47,500 acres of exotic forest in the ensuing five years. But labour has not been available, and, indeed, in the past two years only 1,820 acres have been thinned.

Inability to commence and pursue this great thinning project to completion has enforced a change in silvicultural policy. No longer would thinning benefit many of the stands concerned, and this stark fact, together with the over-all mal-distribution of age-classes and the policy of changing over from indigenous to exotic-timber production, which is tied up with silvicultural management of stands with a view to producing high-grade as well as low-grade timber, has left no alternative to the silvicultural policy now decided upon. That policy is one of defining and concentrating upon thinning only those stands which will respond in the greatest degree, and moreover of ensuring that with the man-power available we will within twenty years be producing some defect-free timber for finishing, joinery, flooring, and weatherboarding as well as the knotty stock which comprises all of our present-day production. Stands which do not show promise of benefiting from thinning will be clear-felled and re-established to provide a better distribution of age-classes.

42. *Waipoua Forest Silviculture.*—During the year the policy of submitting the kauri forests to silvicultural management has been vigorously attacked in reference to Waipoua State Forest. These attacks culminated in petitions to Parliament praying that Waipoua, the largest remaining kauri forest, which has been a State forest for more than forty years past, be locked up as a national park.