another forty years to mature into the final crop, 430,000 of them were lifted and lined out as seedlings in an adjacent "flying nursery." They have thriven well and an excellent small crop of 1/1 trees has been secured at the cost of a single year's cultivation. The procedure is being repeated this year, even to the extent of transferring such stock to other conservancies in lieu of the seed-supplies, which were wholly lacking for that species this year.

38. *Tending of Indigenous Forests.*—On Great Barrier State Forest, 150 acres of young kauri were released from overtopping growth of manuka, &c., and on other kauri forests this operation was performed by patrolmen as opportunity offered.

After marking, 25 acres of red-beech pole forest were thinned and mine props extracted. Thinning, girdling, and underscrubbing were commenced in a silver-beech forest, involving extraction of mine props and saw-logs.

Exotic interplantings in worked podocarp forests were released on 282 acres.

39. *Tending of Exotic Forests.*—Release cuttings covered 925 acres, low pruning 5,340 acres, and high pruning 458 acres; and 574 acres were thinned and 234 acres clear-felled. In addition partial fellings, with extraction of forest produce, were carried out on 742 acres which had suffered wind and snow damage.

40. *Silvicultural Investigations.*—Small trial plantings were instituted on one area acquired for formation of an exotic forest, and were continued on two other areas.

Trial plantings of insignis pine at rectangular spacings of 12 ft. by 6 ft., 10 ft. by 5 ft., and 8 ft. by 4 ft. were continued.

Small areas heavily thinned on a trial basis the previous year on Eyrewell Forest did not stand up to the heavy gale of July, 1945, and in the future thinning will have to be carried out gradually in several stages.

41. *Experimental Plots and Statistical.*—Plots established on Whakarewarewa Forest for studying natural regeneration of insignis pine after clear-felling were recounted, and this has again shown that ample stocking is obtained except on odd small areas, which are filled up by means of planting. Germination is not yet complete on the plots felled in 1945, and the same applies to a less extent to plots felled in 1944:—

Year clear-felled.	Number of Plots.	Number of Trees per Acre.		
		Mean.	Maximum.	Minimum.
1942	10	3,590	11,250	920
1943	7	2,190	4,470	970
1944	14	2,680	12,660	240
1945	14	796	2,660	Nil

Mortality from the bast beetle, *Hylastes ater*, and the honey fungus are relatively negligible.

Quinquennial reinvestigation was made of a series of plots in silver-beech stands on Longwood Forest, Southland Conservancy, and a further thinning carried out.

Further data on mortality in an eighteen-year-old unthinned insignis-pine plot on Maramarua Forest were obtained from a recount made early in April, 1946. The mean annual mortality in all crown classes over four years was twenty-six per acre, but in the fifth year was only fourteen. This indicates that possibly the period of heavy mortality, due to competition, has passed, though one or two further annual investigations will be necessary to obtain confirmation of this possibility.

42. *Forest Botany.*—The collection and summarizing of data relating to current phenological projects for the main exotic and indigenous forest tree species have continued during the year as part of a long-term investigation. Tests carried out on seed stored under different conditions confirm that the storage methods practised are quite suitable for most exotic species studied and also for some indigenous species. It is not possible