

## REPORT.

### INTRODUCTION.

The following is a brief review of the major operations carried out during the year :—

*Afforestation.*—The new area planted was 56,630 acres (including 30 acres of direct formation), which far exceeds the area planted in any one year by any other State in the Empire. This brings the total plantation establishment to 253,603 acres, which, as far as afforestation is concerned, makes New Zealand the leading State of the Empire. The programme mapped out for 1930 planting involves the afforestation of approximately 54,600 acres.

*Thinning, &c.*—An outstanding achievement for the year was the thinning, partially thinning, and cleaning of the majority of the older-age classes in the State plantations. That this silvicultural treatment was overdue had long been recognized, and although experimental thinning of sample plots had been undertaken from time to time, it had not been possible to operate on an organized scheme of any magnitude. The opportunity came, however, when the Service was called on to assist in providing work for the unemployed, and from the month of October, 1929, till March of the present year, gangs were employed on thinning, partially thinning, and cleaning in Rotorua, Canterbury, and Otago-Southland regions.

Some 2,000 acres in a portion of Conical Hills Plantation (Otago) still remains to be dealt with, but the work already accomplished must have an important effect by improving the health of the trees, lessening the fire-risk, and, where thinning was done, by increasing the productive volume of the ultimate timber-crop.

*Unemployment.*—At the peak period 1,820 hands were engaged on forestry work, and when it is remembered that many of these were city dwellers unaccustomed to the rigours of country life and to camp conditions during a wet season, it is pleasing to record that the results from a forestry viewpoint were comparatively satisfactory.

*Waipoua Research Station.*—The establishment of a silvicultural research station in Waipoua State Forest—the last of those large magnificent kauri-forests of the North—was authorized during the year, and the necessary preparations are now in hand to enable operations to be commenced there without delay.

The functions of this Station are outlined in Chapter II of the report, and although definite results cannot be obtained for some time, it is confidently expected that when the five-year experiments and investigations alluded to have been completed, the Service will have secured data which will solve the many problems regarding the rate of growth, regeneration, habits, &c., of New Zealand's finest timber-tree.

*Timber-sales.*—The year's sales of indigenous timber show an increase over the figures for the previous year, and appear to indicate generally that the sawmilling industry is gradually emerging from the period of depression through which it has been passing for some years, and is becoming gradually more stabilized.

*Forest-management.*—A perusal of the report will show that this important branch of forestry has been given careful attention, and good work has been done with respect to forest entomology, silvicultural investigations, botanical research, &c.

*Branch of Forest Products.*—Timber-testing has been continued and the comparative and actual strengths, &c., of seven indigenous timbers and four imported ones were investigated. Various industrial studies—e.g., air seasoning and kiln drying, testing suitable timbers for fruit and butter boxes, testing of insignis pine for bridge-stringers, testing creosoted rimu poles for telegraph and power lines, investigating insignis pine, kauri, &c., for supplies of turpentine, oil, &c., to name but a few—together with an extensive economic pulp-wood survey to ascertain the commercial possibilities of establishing the industry in the Dominion have also been undertaken.

*General.*—To sum up, the work of the year has been varied and arduous, and for the satisfactory results herein recorded I desire to express my thanks to officers of all ranks for their loyal co-operation and untiring energy, often under trying and very difficult circumstances, brought about by the big programme occasioning the employment of large extra numbers of labourers.

### CHAPTER I.—THE STATE FORESTS.

#### I. GENERAL.

##### *Summary of Areas under Control.*

Appendix II of this report shows that the total area controlled by the State Forest Service under all headings is approximately 7,700,000 acres.

At first glance this may appear a very large area indeed, but when it is observed that it comprises less than 12 per cent. of the total superficial area of the Dominion, and that in an insular State such as New Zealand 25 per cent. under forests could not be considered too high to ensure a reasonable margin of safety, the figures can be viewed in their true perspective.