National Forest Survey

Forest survey work was continued at approximately the same rate as in the previous year. The total area now covered exceeds 1,600,000 acres, approximately 500,000 acres being covered during the year. Of this area, 75 per cent. represents merchantable forest. Further details are given in Appendix XI.

In the North Island, millable podocarp stands north-west of Lake Taupo and areas due south of Opotiki are the most important units untouched, and these will be accorded priority for future work. In the South Island, 50 per cent. of the milling timber areas south of Hokitika have been covered on the ground, but the areas north of Hokitika are still untouched. Western Nelson, particularly the region north of Westport, is likely to be difficult area, as it is largely unknown. South Westland and the outstanding milling timber areas of the North Island will be the programme for the summer, 1949–50. In Southland the podocarp forests west of the Waiau River have been completed as far as field-work is concerned; and other areas of beech forest, where information was required for working plans, have likewise been investigated. Coromandel has been completed in the field as far south as Thames. This unit is concerned less with milling stands than with the regeneration of the kauri forests once so abundant in that locality. Milling timber of any extent is practically non-existent on the Coromandel Peninsula. Computation of the stand per acre has been completed for all areas except Westland, and complete volumes have been compiled for an area of 88,000 acres.

Completion of final type maps has fallen far behind field-work owing to shortage of draughting staff, both in the Forest Service and the Aerial Mapping Branch of the Department of Lands and Survey. To date only five of these maps have been completed, and a further five are in the hands of the Aerial Mapping Branch. In the coming year there will be a considerable increase in the number of aerial photographs ready for plotting. However, with the demands made on draughting staff by exotic-forest activities, it is doubtful whether any great increase in the output of type maps will be possible. Until these maps are completed, no reliable timber estimates are possible.

The aerial photograph library was increased during the year by 2,305 to 8,934. It is important to build up adequate cover of the forested area so that photographs are available for use by the field staff of the project.

Forest Products Research

(1) *General.*—In anticipation of the transfer of research work to the Forest Research Institute at Rotorua, the necessary laboratory facilities have been planned and are now approaching completion; however, immediate cessation of all investigational work in Wellington is not practicable. In any case, it will be necessary to maintain liaison with other research bodies, Government Departments, and trade organizations in Wellington, also to continue the technical advisory service in that centre.

A short course on wood technology was again given by a Forest Service officer at the Wellington Technical College. It is of interest to note that a more ambitious course is now in progress at the Seddon Memorial Technical College.

Standards Institute Committees continue to occupy a considerable amount of officers' time. The more important matters under consideration during the year were grading of insignis pine, kiln drying practice, New South Wales hardwoods, wood preservation and glues.

(2) *Grading of Timber.*—The timber requirements of the building industry in New Zealand are in need of very critical analysis in the light of the changing situation as regards availability of both species and grades. In particular there must be a much greater economy in the use of the clear grades of indigenous timbers. In the immediate future the exotic species, particularly insignis pine, can make their greatest contribution in the form of framing grades. As regards finishing grades, it is inevitable that some