

Signal progress has been achieved in the field of timber-testing. Red, black, and hard beech, kamahi, kauri, and insignis pine were investigated, and cross-arm tests of hinau and red-beech, and pole tests of silver-pine, kawaka, *Eucalyptus amygdalina*, and *E. ovata* were completed. A modern revolving-drum box-testing machine was designed and built for the study of dairy containers in which wire bindings and corrugated fibre packages promise to play an important part.

The proposed installation of an experimental dry kiln was delayed for the purpose of watching developments in connection with the commercial application of the internal fan type of kiln. This type has now proved so successful that a semi-commercial plant is now urgently needed for the establishment of drying schedules for the native woods. A study of the shrinkage in wood taking place during seasoning resulted in the development of a table of sawing excesses for the principal softwoods.

Continued attention was given to the study of wood-preservation problems. A comprehensive report upon the wooden-pole situation was prepared for publication and recommended methods for the open-tank treatment of the commonly grown exotic timbers disseminated through the *Journal of Agriculture*. Mr. D. Miller, B.Sc., Entomologist, Department of Agriculture, has prepared a valuable treatise on the forest and timber insects of the Dominion. This report is now in the hands of the Government Printer. Imported poles, piles, &c., continue to introduce forest and timber insects into New Zealand, and it has now been proven that the destructive Australian white ants can acclimatize themselves in this country. The necessary statutory machinery is now being formed to regulate further introductions of these and other pests. Mr. J. S. Yeates, Ph.D., of Victoria University College, continued his research into the sap-stains of white-pine and other timbers, and developed a method of control by dipping in a weak solution of borax.

The enormous possibilities attached to the chemical utilization of wood lead to the inauguration of a long series of destructive distillation and pulping investigations. A portable type of destructive distillation apparatus was used for a study of kauri waste, and a modern oil-bath heated retort purchased for intensive research in the same subject. Pulping tests of rimu and white-pine are being carried out in co-operation with the Commonwealth Bureau of Science and Industry, and deresinating and pulping tests of kauri in co-operation with the Imperial Institute, London. A preliminary study of the bleeding of kauri-trees was commenced.

The Dominion Building Conference, sponsored by the Forest Service and attended by forty-four delegates representing Government, local body, and consulting architects and engineers, builders, sawmillers, and other interests throughout the Dominion, marks a signal advance in one of the major lines of research. It is the policy of the Forest Service to study each wood-using industry for the purpose of indicating economies in the material used, and attention was first given to the building industry, since it consumes more than half of all the rough sawn timber used in the country. The Conference brought to the attention of the public as never before the necessity of eliminating waste in the utilization of timber. Prominent recognition was given to the importance of improving the technique of cutting, grading, and seasoning of timber, and of applying preservative treatment to eliminate the heavy drain upon the forest resources due to replacement of structures destroyed by insects and decay. The results secured will have far-reaching effects in preventing waste in the building industry.

CHAPTER V.—GENERAL.

REPORT OF THE TIMBER TRADE FOR THE YEAR ENDED 31ST MARCH, 1925.

Production.

The following tables, showing the reported output in superficial feet of the various species of timber from New Zealand sawmills during the years ended 31st March, 1922, 1923, and 1924, have been compiled from figures supplied by the Government Statistician:—

REPORTED PRODUCTION OF SAWN TIMBER BY SPECIES.

Species.	1922.		1923.		1924.	
	Sup. Ft.	Per Cent.	Sup. Ft.	Per Cent.	Sup. Ft.	Per Cent.
Kauri	21,435,728	6·81	22,460,759	7·38	19,743,196	6·23
Rimu	157,345,928	49·96	155,627,936	51·13	181,093,581	57·12
White-pine ..	68,486,633	21·74	66,088,219	21·72	56,699,443	17·88
Totara	19,570,561	6·21	20,843,718	6·85	18,904,361	5·96
Matai	24,830,368	7·88	23,747,049	7·80	24,326,148	7·67
Beech	4,863,184	1·55	5,227,018	1·72	6,528,981	2·06
Insignis pine ..	10,815,485	3·43	7,683,602	2·52	7,386,249	2·33
Other	7,624,423	2·42	2,673,576	0·88	2,387,257	0·75
	314,972,310	100·00	304,351,877	100·00	317,069,216	100·00