

snow damage, is little appreciated, largely because damage of recent years has been localized and confined to non-forested areas. Against this there is strong evidence that in past centuries New Zealand has been subjected to serious forest devastation by abnormal winds, probably when preceded by soaking rains or accompanied by heavy snowfalls. On the gravelly plains of Canterbury in particular extensive windthrow would be the inevitable result, and the planning of emergency salvage operations has therefore been commenced. Fire, however, continues to be the outstanding menace to the Dominion's forests, and whilst radio and poster publicity aided by a strict departmental policy of law enforcement is making the public more fire conscious, the legislative provisions are altogether too limited to give effective protection throughout the Dominion. The experience in North Auckland this year of gorse, fern, and scrub fires extending from small farm burning operations over miles of country and endangering or destroying fences, buildings, forests, and even human lives is an effective demonstration of the necessity for urgent correction, and immediate consideration is being given to the framing of appropriate recommendations whereby Dominion-wide control of burning operations may be inaugurated.

10. *Forest Utilization.*—The basic problem of New Zealand forest utilization is the replacement of indigenous by exotic timber wherever practicable. Of the current annual cut of all sawn timber amounting to about 350,000,000 board feet, about 50,000,000 board feet is exotic softwood, but if the post-war demand should reach 450,000,000 board feet, as appears not unlikely, then the whole of the extra 100,000,000 board feet should be supplied in exotic softwood. Assuming, however, that the annual cut is sustained at the 450,000,000 board feet level for a decade, the indigenous timber content should decrease to 200,000,000 board feet and the exotic rise correspondingly to 250,000,000 board feet, but such a development will depend primarily upon the almost universal adoption of log gang or modern bandsawing equipment for conversion of logs into sawn timber, of kiln drying even for scantling and framing timber, and of preservation by pentachlorophenol or similar chemicals of the kiln-dried timber. By these means waste will be reduced to a minimum, costs likewise reduced, while an infinitely superior article to the indigenous timber now marketed will be supplied. No longer will timber shrink and crack, no longer will framework distort, and no more will homes suffer from insect and fungal attack if properly maintained.

A still further outlet for the exotic resources is the local pulp and paper industry, the normal pre-war consumption of which was about 90,000 tons per annum. A combined pulp and paper mill with an annual production of almost 40,000 tons is advocated in the Lower Waikato as the most economical unit to establish meantime.

11. *Forest Finance.*—Following the representations made in last year's report, discussions have taken place with the Public Accounts Committee and the Treasury regarding the payment in connection with forestation operations of compound interest at $4\frac{1}{2}$ per cent., but further investigations have been ordered before any relief can be secured. An investigation into the incidence of taxation on forestation companies has also been commenced.

12. *Soil Erosion.*—Co-operation has been afforded the Soil Conservation Council, but lack of direct representation precludes an optimum effort by the Forest authority, which is universally recognized elsewhere as responsible for the most effective contribution to the broader problem of soil and stream control.

CHAPTER II.—ADMINISTRATION

13. *Permanent and Temporary Staff.*—Permanent, 210 (198); temporary, 131 (130). Increase wholly due to appointment of cadets and timber control temporary staff.

14. *Military Service.*—Second N.Z.E.F., 58 (39); R.N.Z.A.F., 25 (14); Territorial, 40 (48); Navy, 1; Home Guard and E.P.S., 130 (148); W.W.S.A., 11 (3).

15. *Casual Staff.*—Average for year, 920 (922)

16. *Honorary Staff.*—Honorary Forest Rangers, 233 (237).

17. *Health of Staff.*—The general health of the staff continues to be satisfactory, but overtime work on timber-control activities has become dangerously excessive.

18. *Safety of Employees.*—Total accidents, 169 (188). Details are as follows: Cuts, 52 (60); strains, 39 (43); fractures, 8 (0); crushes and bruises, 37 (39); septic wounds, 9 (13); eye injuries, 9 (16); miscellaneous, 15 (17). No fatal accidents occurred, although two were of a serious nature. Once again the greater proportion (112) occurred in Rotorua Conservancy, but next year's figures should show a substantial drop as a result of a safety campaign which has been vigorously pursued by the display at danger points of printed warnings and posters illustrating the common causes of accident.

19. *Compensation to Employees.*—The Service continues to carry its own accident-insurance risk, and the total compensation payment, total wages, &c., are as under:—

Year.	Total Payments.	Total Wages.	Per Cent. (Approx.).
	£	£	£ s. d.
1941-42	3,057	245,600	1 4 11
1942-43	4,426	261,000	1 13 11

For the past year the estimated premium payable for a comprehensive accident policy would have been £8,000; a saving of over £3,500 has thus been effected.

20. *Recruitment.*—Nineteen cadets were appointed.

21. *University Training.*—Nine cadets attended University lectures.

22. *Examinations.*—Three 1941 candidates completed their practical departmental examinations.