89. *Wood-preservation.*—The use of sapstain-preventive chemicals initiated by the Service last year on a commercial scale at the Waipa mill has entirely proved its usefulness in maintaining exotic softwoods in a bright, clean state under even the worst conditions of drying, and increasing quantities are being used by commercial firms. Pentachlorphenol in a petroleum and pine oil mixture is likewise finding increasing use for the treatment of building timbers *in situ* and of finished furniture parts. Its peculiar property of not causing any swelling or subsequent shrinkage of the wood or of affecting its staining and polishing properties makes it an ideal preservative for this latter purpose, since all concealed joints are as well treated as exposed parts. In view of the difficulty of procuring further supplies from the United States of America due to war requirements in that country, investigations are being made into the possibilities of Australian-produced substitutes.

For testing the efficiency of priming-coats in the painting of exotic-pine timbers a paint-test fence is being erected at Wallaceville. To the wooden framework already in position painted panels are to be attached; rimu controls will be used. Collaboration has continued with the Inter-departmental Paint Committee.

90. *Derived Products.*—A large-scale study of cordwood volume measurement was also initiated, and stacking methods investigated with a view to controlling sapstaining in pulpwood by (*a*) spray treatments with sapstain preventives, (*b*) open-layer stacking after barking, and (*c*) the retention of bark. Seasonal variation in ether-soluble-resin content of freshly-cut samples of insignis pine and the change in this resin when wood is stacked in 4 ft. and 8 ft. cordwood is being studied in collaboration with the Dominion Laboratory.

91. *Charcoal and Gas Producers.*—The demand for charcoal was not brisk as cheaper Waikato "char" was sufficient to meet the requirements of the majority of the gas-producer units in operation. Thus for the greater part of the year production was carried on only at Rotorua, where charcoal was manufactured principally from eucalypts for use in the producer-gas units fitted to departmental trucks. Shortly after Japan's entry into the war, however, it was deemed advisable to build up stocks of charcoal to meet increased demands, and production was expanded at Rotorua, Taringamotu, and Nelson (Golden Downs). At Golden Downs experimental burning in brick-lined and steel-sheet-lined pits produced beech charcoal of a satisfactory quality, but further experience with departmental producer-gas vehicles has established beyond all possible doubt the superiority of manuka to any other local charcoal used.

During the year, 65 tons of charcoal were produced; sales amounted to 39 tons, with stocks at the end of the period standing at 49 tons. A small but regular demand has developed for various grades of fines and powder for poultry feed, &c.

In co-operation with the Dominion Laboratory and the Substitute Fuel Committee, an effort is being made to develop a gas-producer unit which will use wood blocks directly and so avoid their costly conversion into charcoal.

CHAPTER XI.—MISCELLANEOUS.

92. *Legislation.*—Amendments to the Forests Act, 1921–22, are contained in sections 26 to 29 inclusive of the Statutes Amendment Act, 1941. An amendment to section 45 empowers a Forest Officer to require any person within a fire district or within a radius of five miles of an outbreak of fire to assist in its control and suppression. Further amendments extend the provisions of section 63 of the Act, and include the power to make regulations to regulate or prohibit traffic into, in, or through State forests, to authorize Forest Officers to prohibit or regulate the use of any public road adjoining a State forest or within a fire district while fire-fighting operations are proceeding, to prescribe measures and equipment to be provided by sawmillers and other persons engaged in industrial operations in State forests and fire districts for the prevention and suppression of fire, to establish and conduct recreational and camping areas in State forests, and to eradicate or prevent the spread of any disease which may affect trees or timber, whether such disease is caused by or consisting of the presence of any insects, fungi, bacteria, or viruses. This regulation does not affect the provisions of the Orchard and Garden Diseases Act, 1928.

Section 3 of the Reserves and other Lands Disposal Act, 1941, cancels the provisional State forest reservation over Section 9, Block VIII, Waimea Survey District, Nelson Land District, reserves the land for water-supply purposes, and vests it in the Corporation of the City of Nelson.

93. *Finance.*—A summary showing receipts and payments from State Forests Account for the past year, together with comparative figures for the previous three years, is presented in Appendix VI. Complete departmental accounts appear in parliamentary paper B.–1 [Pt. IV].

Expenditure for the year decreased approximately £60,000, mainly because of reduced personnel on managed forests. Another item is the reduction of approximately £12,000 under "Utilization" owing to the change over from construction to operating conditions. The revenue increased by nearly £79,000, largely due to the output of the utilization plant—*i.e.*, sales of sawn timber, box-shooks, creosoted products, &c.

94. *Subventions to Local Bodies, &c.*—Last year attention was drawn to the subventions of State-forest revenue to local bodies and to the Consolidated Fund, and the extent of this tax on forest finance will be gathered by perusing the appended figures for the past four years:—

Year.	Consolidated Fund (under Section 39 of Forests Act, 1921–22).	Local Authorities (under Section 17 of Finance Act, 1924).	Local Authorities (under Sections 6–7 of Forests Amendment Act, 1926–27).	Total.
	£	£	£	£
1938–39 ..	18,712	14,191	5,825	38,728
1939–40 ..	14,416	13,202	8,278	35,896
1940–41 ..	16,151	16,593	7,075	39,819
1941–42 ..	20,443	17,080	8,261	45,784
Totals ..	69,722	61,066	29,439	160,227