

25. *Climatic Damage*.—Little or no damage has been reported from climatic causes. No violent storms occurred during the year, but droughts were experienced in the Auckland and Canterbury districts where deaths of exotic trees occurred in parks, gardens, and farm plantations. On Great Barrier Island wind caused browning off and mortality in patula pine stands, and in Southland a certain amount of windthrow. In Kaingaroa Forest frost caused fairly heavy damage to the 1949 plantings of insignis pine, pit-planted stock suffering the heaviest mortality, and at Te Whaiti late frost burned back spring growth of tawa.

26. *Fire Damage*.—Fire damage is dealt with in Chapter VII under the heading of "Fire Prevention and Control."

27. *Forest Offences*.—Convictions for offences against forest law during the year number 36, of which 22 were obtained under the penal sections of the Forests Act, 1921–22, and 14 under the provisions of the Forest (Fire Prevention) Regulations 1940. Fines imposed amounted to £91 10s., the heaviest being £10 for unlawful cutting of forest produce. Costs and damages totalled £328 11s. 4d. Particulars of these offences are given in Appendix IX. The offences were for the most part of a minor nature. There were 10 convictions for unlawful cutting of forest produce, but in no case was the quantity cut or removed large; the biggest sum recovered in one information being £79 6s. 4d., as compared with the previous year's £1,428 19s. 1d. in a single case. There was a sharp increase in convictions for the offence of unlawfully entering a State forest, but a considerable decrease in offences in connection with fires; there being only 7 convictions under the fire-prevention provision of the forest laws as against 15 convictions for such offences in the previous year. In all cases where prosecution was undertaken convictions were secured.

MANAGEMENT

28. *Forest Working Plans*.—Forests may serve a community directly by producing timber or indirectly through their influence on water-supply and soil stability, not to mention their enjoyment in recreation and the non-material values of forests. Where forests are managed for the production of timber, profits are expected as in any other business: so the growing of timber crops must therefore be managed according to prudent business principles and methods. To-day the need for economy is emphasized more than ever, and in such a long-term business as forestry economy can only be obtained by well-thought-out plans. A forest working plan is therefore no needless affair but a sound business document laying down the various operations to be undertaken throughout the life history of a given forest or group of forests for the purpose of maintaining intact or of increasing the capital value of the forest asset; the working plan is necessary to ensure continuity in the management of a forest. Section 26 of the Forests Act, 1949, requires that working plans shall be prepared for all State forests to specify:—

- (i) The silvicultural operations to be carried out;
- (ii) The maximum area from which forest produce may be removed;
- (iii) The maximum quantity of forest produce that may be disposed of;
- (iv) The protection and development operations to be carried out.

Following very strong recommendations from the Fifth British Empire Forestry Conference in 1947, it was decided to accelerate the production of working plans by the preparation of skeleton plans for the numerous indigenous forests which called for management on a broad basis only. This form of plan has also been applied to immature exotic forests and those in course of establishment.

29. Assessment of growing stock in exotic forests has proceeded apace, so that information will be available for the preparation of working plans. Field-work has been completed in Tairua, Maramaru, Karioi, Golden Downs, Balmoral, Raincliff, and the Tapanui group of forests, totalling in all approximately 48,000 acres. In addition, the assessment on an ecological basis of the site quality of a number of compartments in