

7. WAITANGI ENDOWMENT.

As announced in previous reports, small-scale tree-planting was undertaken at this historic station pursuant to the provisions of the Waitangi Endowment Act, 1932-33.

During the year 58 acres were planted, making the total to date 239 acres.

At the request of the Trust Board 10 lb. of kauri-seed were sown in the nursery, with the result that about 40,000 seedlings were raised for the Board's use. Twelve pounds of *P. taeda* seed were also sown in the nursery, but only about 56,000 seedlings were obtained. "Damping off" was responsible for some damage to both species mentioned.

8. FOREST ATLAS.

This branch of the service experienced another busy year, being fully occupied in preparing new plans, keeping atlas sheets up to date, compiling topographical and species plans of the exotic State forests, &c., in addition to ordinary routine work. The new work included the preparation of four plans, 126 tracings, sixteen graphs, and the renewal of eight atlas sheets.

Eight new topographical plans and five new species plans of the exotic State forests were compiled, and additions made to thirty-eight other species plans. A set of aerial photographs of the Reefton District was obtained from the Defence Department, and a mosaic was made for departmental use.

CHAPTER II.—FOREST PROTECTION.

1. GENERAL.

The year's weather from the forestry point of view, has been less spectacular than in the preceding year, but still sufficiently distinct from normal to be quite satisfactory. North Auckland again experienced frequent and continuous rains without reaching any of the record figures alluded to last year. Each Auckland recording station showed between 20 in. and 30 in. decrease in rainfall, and Waipoua State Forest succeeded in recording 1,677 hours of bright sunshine, an advance of 250 hours on its previous year's total. At no time, however, did any prolonged spell of fine weather create an undue fire hazard in the North, and no fires occurred. Farther south in the Rotorua Conservancy fine winter weather with frosts continued somewhat later than usual and created an early fire hazard and permitted the spread of a scrub fire from private land into the main Kaingaroa State Forest on 26th September. This fire was the worst that has yet been experienced in this large exotic forest, and 107 acres of nine-year-old pines were destroyed before it was extinguished (see later description). Thereafter the season, although not nearly so wet as the previous one, had a very large number of wet days, and fire danger was far below normal for the summer. Similarly, for all other conservancies, it was a summer of hazard below normal, and, except for one fire in Hawke's Bay, which in early December spread through bush recently milled over, no fires at all of any moment occurred. This was particularly fortunate in respect of the large areas of protection forest devastated by the gale of February, 1936 (see last year's report). A dry summer would have made these areas very susceptible to large-scale fire damage, but, as it has turned out, green scrub and second growth has had a good chance to come away and has gone a long way towards making them comparatively fireproof.

It is also pleasant to record that during the damp spring and summer there occurred none of the late spring and summer frosts, which were so marked a few years ago. No signs of frost damage, therefore, were to be seen in either indigenous or exotic forests, and scarcely a case of *Phomopsis strobi* damage could be found in any pine forest.

On the contrary, those exotic forests in the more arid areas of the South Island received much heavier rains than usual and present an appearance of greater well-being than for several years past.

2. FOREST FIRES.

As already stated, the season was one of minimum hazard, and the only fires recorded were as follows:—

Rotorua Conservancy (107 acres—nine-year-old *P. radiata*).—The climatic conditions at the time of this fire have been discussed in the preceding paragraph. It is to be noted that it occurred four days before the commencement of the gazetted fire season, during which settlers are compelled to take certain precautions. It is also occurred during the week-end and at some distance from the State Forest boundary and no evidence was procurable as to its method of origin.

Wellington Conservancy.—One fire in old workings already described.

Nelson Conservancy.—Three settlers' fires spread to forest lands. In one case 30 acres of State forest was burned; in another 9 acres of scenic reserve, and in another 15 acres of privately-owned *Pinus radiata*.

Canterbury Conservancy.—One midnight fire of unknown origin destroyed the stable, carpenters' shop, and other outbuildings of Hanmer State forest. That it did not spread to either the adjoining office or the Ranger's dwelling was largely due to the co-operation between the staff and the local fire brigade. The liaison that is maintained between this volunteer fire brigade and the Forest Service was again fully tested, and the value of the services of a trained and equipped body of fire-fighters cannot be too highly emphasised. It is a pleasure to have this opportunity of recording publicly the value of the assistance rendered by this brigade, but the regrettable point is that no other State forest is so situated with a volunteer fire brigade in close proximity.

Another small fire in an inaccessible position ran through about 20 acres of protection forest mountain beech in this conservancy (Alford State Forest).