

sound to-day in cases where paint has been used and the buildings are clear of the ground. Naturally there is always a shrinkage in this timber, as it is always fairly green and damp when used.

I have personally thoroughly overlooked these buildings, and only in cases where the plain boards have not had the favour of a little oil, and where the board-ends jut into the ground, have I found instability.

I also have overlooked two dwellinghouses in the vicinity, both seventeen years of age, and both almost totally *Pinus insignis*, and have found them to be quite as satisfactory (weatherproof, stable, and warm) as near-by houses of red-pine.

The best preserver of *Pinus insignis* has been found to be a coating of tar.

E. Phillips Turner, Esq., Secretary, Forestry Commission.

I am, &c.,

RONALD OPIE.

No. 18.

DEAR SIR,—

Barr Hill, 13th May, 1913.

In reply to yours of the 9th instant, I beg to assure you of my care and leniency in my estimating of the local *Pinus insignis* plantations. I have been to some trouble (a pleasure, believe me) to corroborate my former evidence, and find that I have been even too lenient.

In the district there are some 400 (not 200, as I placed it before, to be well on the safe side) acres of *Pinus insignis* forest; and an average yield per acre would be more than 190,000 superficial feet: Average barrel, 30 ft.; average diameter, 2 ft. to 2 ft. 6 in.; width of rows, 12 ft. or so; distance of each tree apart, 7 ft. to 9 ft.: fair average equals 200,000 superficial feet.

Plantations vary in size; but as an example of a fine, though not quite ideal one, I will mention that of Mr. McCartney. The plantation is 60 acres in area, and one which it would well reward a member of the Commission to visit. Some time ago half an acre of this area was felled and cut into timber, the royalty paid being £30. You may gauge the yield per acre from this; nevertheless, bearing in mind that the timber was cut by contract, this circumstance I find resulting in the loss of much timber quite capable of being made into useful material.

I am, &c.

RONALD OPIE.

E. Phillips Turner, Esq., Secretary, Forestry Commission.

P.S.—I am not absolutely certain that the royalty paid on the $\frac{1}{2}$ acre felled timber mentioned was £30. I have it from a fairly reliable person nevertheless.—R.O.

No. 19.

DEAR SIR,—

Te Mata, Havelock North, 27th March, 1913.

I have received a letter from Mr. Phillips Turner asking a few questions about my eucalyptus plantations here, and I am pleased to give you my experience. The ground was ploughed about 6 in. deep from grass, harrowed twice, and chain-harrowed, and sown the end of August—4 oz. of seed was sown per acre, mixed with some dry soil; sown broadcast, using both hands and grasping with thumb and two fingers. Chain-harrowed after, and ought to have been rolled, but the land was too steep, and would have covered the seed too deeply. The seed was principally blue-gum with stringy bark, ironbark, peppermint, and other sorts. The seed was procured mostly off old blue-gum trees here and on neighbouring places where the varieties grow. The trees were begun to be thinned out when one- and two-year-olds for stakes for netting and for firewood; they grew at the rate of 7 ft. per annum for the first five years, and since have thickened in the trunk and have grown possibly 2 ft. per annum. The trees are now about 18 ft. apart in some plantations, and in others 10 ft. or 12 ft. The seed was in two plantations sown on gravelly terrace banks and in others on heavy clay land with a wet subsoil, and did best on the former soils. The altitude above the sea is 100 ft. Rainfall, from 20 in. to 40 in., the average being about 28 in.

I have used blue-gums for straining-posts and have found that when charred between wind and water (6 in. above and below ground) they outlasted totara strainers procured from the Dannevirke district—an inferior light-coloured totara. For fencing-material nothing can compare with *Robinia pseudo-acacia*, as they grow in every kind of soil from pure pumice to rich loan, and when 4 in. through will outlast totara. I have found *Acacia dealbata* and *decurrens* lasting as posts and strainers on light pumicey soils.

I raised some thousands of trees of *Catalpa speciosa* (which have a great name in the United States), and found that our spring frosts in Hawke's Bay kept them from becoming any use. They sprouted or came into leaf very early in September, and a hard frost would cut them back, and if they tried to bud again in November the same thing would happen, and they have proved useless.

For growing timber (in time) my *Pinus austriaca* and *Laricio* will prove the most valuable, I think.

Yours, &c.,

B. CHAMBERS.

The Chairman, Forestry Commission, Wellington.

No. 20.

DEAR SIR,—

Kanieri, 26th March, 1913.

I notice that you are inviting sawmillers to give reasons why the export of white-pine should not be stopped.

As you are aware, the land from which the white-pine at Benjamin and Mulcock's mill, Kokatahi Road, is cut off is taken up by other parties for grazing-runs, and consequently if the timber is not