

Kaituna Valley, the remainder in the Pelorus or in other parts of the Sounds, excepting two small mills south of the Wairau.

Sawmills were established in this district in very early days, the large supply of good timber growing in situations easy of access, and the facilities for shipping coastwise having proved irresistible inducements. It is therefore no great matter for surprise that most of the forest near the sea has been practically worked out. I was informed that one sawmiller had contemplated the advisability of starting a mill in the Aorere Valley, Nelson, but was debarred by the absence of a wharf.

I was unable to obtain particulars of the quantity of timber shipped coastwise. It is supposed, however, to have slightly diminished of late years on account of the increased local demand. The greater portion of the timber manufactured in the upper part of the Kaituna Valley is sent to Blenheim by timber-waggon, and passes into consumption direct.

Most of the mills are working upon freehold land, in some cases on payment of a royalty to the owners, the rate varying from 6d. to 1s. per 100ft. Sawmillers can work on Government land on payment of a royalty of 6d. per 100 superficial feet; but the measurement is left entirely to the sawmiller, who forwards a return to the Commissioner of Crown Lands once every six months. I was assured by one of the largest firms in the trade that the logs were invariably measured at the small end—a mode of measurement which would horrify a timber-merchant in England. The annual amount received by the Crown for royalty is about £390.

In a comparatively short time the bulk of the trade in the Pelorus will be concentrated under two firms, most of the available forest belonging to the Crown in that district having been cut out, with the exception of the Rai Valley. Under the old Provincial Government contracts were entered into for the construction of roads and bridges, and the contractors taking payment in land-scrip, much of which was ultimately purchased by sawmillers and others at low rates. In some cases the land is covered with splendid timber, so that the purchasers have been able to secure valuable portions of the public estate at but trivial cost. A large area of timber-land in the Upper Pelorus, originally alienated under this regulation, is now held by the owners for sawmill purposes, and will prove of great value.

Mixed pine- and beech-land is supposed to yield from 12,000ft. to 15,000ft. per acre on the average; but the lowlands in the Kaikoura Valley must have afforded much higher returns, some portions certainly exceeding 40,000 superficial feet per acre. A cleared section of about fourteen acres was pointed out to me by a sawmiller, who had purchased the timber upon it at a royalty of 8d. per 100ft., and who stated that it had produced over £10 per acre: this would be equivalent to upwards of 30,000ft. per acre, although it was not nearly so good as a piece of untouched forest leased by the same individual.

The district has long enjoyed a special reputation for the high quality of its white-pine. A variety of this timber has a stouter grain than white-pine grown elsewhere, and is of a yellowish tint; it is also more durable. The bark is said to be much rougher than in the ordinary form; it is chiefly found in the moister valleys. By some of the bushmen it is said to be the male plant, while others insist that it is the female; but the sex of the plant has no direct connection with the durability of the timber. I purpose making a microscopical examination of the timber of the different varieties during different stages of growth in the hope of arriving at some definite conclusion.

Less than 950,000 superficial feet of converted timber passed over the Blenheim and Picton Railway during the year ending the 31st March, 1885. Firewood carried during the same period amounted to 6,180 tons. From a return prepared by the officers of the Customs, I find that the shipments of timber from the Sounds coastwise for the year ending the 31st December, 1884, amounted to about 3,000,000 superficial feet.

FORESTS ON THE LINE OF NORTH ISLAND CENTRAL RAILWAY.

POUREWA AND MANGAONE VALLEYS.

THE lower portion of the Pourewa Valley is mostly clothed with mixed forest, consisting of red-, white-, and black-pines, tawa, miro, and northern rata. The red-pine is usually of splendid quality and very large dimensions. In some places tawa is the prevailing tree, but in this district it is deemed of little value except for firewood. Good specimens of black maire (*Olea Cunninghamii*) are occasionally seen, but are not frequent; the white maire (*O. lanceolata*) is still more rare. Red- and white-pines, with trunks from 40ft. to 65ft. long, and squaring from 16in. by 16in. to 24in. by 24in., are not uncommon in the rich level lands; frequently the white-pine attains still greater heights.

The forest is very dense in many parts, and the underwood unusually close; occasionally the konini (*Fuchsia excorticata*) may be seen with a stout trunk over 30in. in diameter; the kupapa (*Passiflora terandra*) often with a perfectly straight naked stem over 90ft. long, losing itself in the top of a lofty pine, from which its pendant slender branches and glossy leaves hung down in a cloud, while the stem itself, notwithstanding its diameter was only four inches, was as rigid as that of the pine which supported it.

On the slopes of the hills the pines as a rule are gradually displaced by entire-leaved beech, sparsely intermixed with the more valuable tooth-leaved beech; the former is mostly of rather small dimensions, while the latter, although somewhat larger, never exhibits its greatest luxuriance. Totara is nowhere plentiful, although scattered trees are to be found.

At the Pokiore loghouse a natural clearing is surrounded by fine timber, especially at the back of the house. On the base of the hill white-pine mixed with totara, matai, and red-pine form a