

steps should be taken to ascertain the conditions of the chief Australian markets, and to what extent the ordinary timbers of New Zealand would find ready sale.

The freehold may be acquired in Westland for £1 per acre, including the timber. Licenses to cut timber are granted for one year, on payment of a fee of £5 or 10s. per month, but no definite limitations are made with regard to area. Practically the licensee has liberty to cut wherever he pleases within the boundaries described in his license, no supervision being attempted. The fees received for timber-licenses appear to have averaged £65 per annum for the last three years. The sum of £ per annum is received for pastoral leases, and should, I think, be regarded as forest-revenue in this district.

NELSON.

THE area of the Provincial District of Nelson is estimated at 7,000,000 acres; the forest lands still in the hands of the Crown comprising an area estimated approximately at 3,290,000 acres; but this quantity includes good forest, mountain-forest, scrub, and patches of timber in gullies, &c., so that it is extremely difficult to form an approximate estimate of the acreage of timber available for profitable conversion; in all probability it will not exceed one million acres.

In some districts the Nelson forests closely resemble the best forests in Westland in their general character and in the large return of convertible timber yielded per acre, but this is by no means their general character. The western side of the district and the valley of the Grey and the Buller exhibit a large preponderance of tooth-leaved and entire-leaved beeches, except on low alluvial lands near their mouths and at the entrance of their tributaries. In many localities the trees are of small size, and, although valuable for mining purposes, are not adapted for profitable conversion except under special circumstances.

The forest comprises the same kind of timber-trees as those of Westland, although they occur in different proportions, as already stated. In addition, some parts of the district contain large quantities of the northern rata (*Metrosideros robusta*), which often forms grand symmetrical stems of great length and girth, a specimen measured at Mokohinui was 35ft. to the first branch and 54in. by 54in. for the whole length. Frequently, however, when the tree commences life as an epiphyte the stems are distorted, being developed solely from aerial roots, which descend the tree to obtain nourishment from the soil. Frequently two or more roots are given off on different sides, when the supporting tree sooner or later becomes strangled in their iron embrace. Occasionally, near the sea, it forms small groves with trunks of considerable length and from 12in. to 18in. in diameter, affording useful timber for a variety of purposes. The timber is dense, compact, and durable, while the leaves and twigs contain large quantities of an essential oil, which in all probability possesses similar properties to that of the Eucalyptus. Another tree found in Westland, but more plentiful in Nelson, is the pukatea (*Laurelia novæ-Zelandiæ*) which affords a durable timber adapted for the purposes of the cabinetmaker, the boat-builder, and for general use. Nails may be driven into wet or dry boards without causing the slightest tendency to splitting; it is also difficult of combustion. At present it has not come into general use.

The tawa (*Beilschmiedia Tawa*) is a northern tree, which finds its southern limit in the northern parts of Marlborough and Nelson, occurring more sparingly in the latter district than in the former, where it can scarcely be said to enter into the composition of the forest. The karaka (*Corynocarpus laevigata*) is of still rarer occurrence in Nelson. The southern palm, the nikau (*Rhopalostylis sapida*), is of rare occurrence in Westland, but frequent in many parts of the Nelson District, where it attains a large size, and sometimes develops a larger inflorescence than I have seen elsewhere. A characteristic of the Nelson forest is the abundance of the kouwharawhara (*Astelia Solandri*), an epiphyte which grows on the limbs of trees, and presents the appearance of a gigantic bird's-nest.

With a few intervals, forest is almost continuous along the western side of the district, especially the northern portion, and the valleys of the principal rivers. There is a large extent of forest in the central part of the district, with stretches of open land. Many valleys, as the Riwaka and Takaka, were formerly filled with a dense growth of valuable mixed forest. In the Aorere Valley there is a vast amount of timber with large patches of open country. About twelve or fifteen miles up this valley the forest becomes remarkably dense, and the proportion of rata exceptionally large. In the Amuri, and generally in the southern and eastern parts of the district, the extent of forest-land is comparatively small.

The abundance of tooth-leaved, entire-leaved, beeches on the western side of the district has been already mentioned, but it must not be supposed that the forest consists exclusively of these timbers: isolated pines occur everywhere, and large patches of red-pine are not unfrequent in low flat valleys, with a fringe of white-pine along the course of the rivers, and patches of the same in swampy places. The beeches, however, are far the most abundant. Black-pine and totara are comparatively rare. Both forms of silver-pine are generally distributed, in some places occurring in considerable quantity, and the low land for some miles along the mouth of the Buller is covered with a luxuriant growth of mixed pine, white-pine predominating in the moist places, red-pine in the drier. Fine specimens of the northern rata are not unfrequent. Higher up the valley the pines become local, being chiefly restricted to strips of level land at the base of the mountains, or to gentle slopes, where the rimu sometimes ascends to 2,000ft. In some of the valleys of the tributary streams there is a larger extent of pine than in the main valley, where the mountain-slopes are chiefly clothed with tooth-leaved and entire-leaved, silver-, and mountain-beeches, which vary to a great extent in quality and growth.