

to the coachbuilders. Hinau was snapped up at any price, and miro sold as rimu.

Kotuku strainers and mine props are now being taken off the same area, and next year hundreds of tons of rata, tawa and rimu firewood will complete the utilisation.

It is somewhat different to taking only 8,000ft. rimu off an acre.

From this point I intend to treat the subject purely from a New Zealand standpoint. I have here a list of importations of forest products for the year 1920, and will endeavour to indicate to what extent these articles can be produced within New Zealand. Except in the case of wood pulp, printing paper and acetic acid, the capital necessary to establish these industries is not large, and therefore presents a favourable opportunity for investment.

IMPORTANCE OF FOREST PRODUCTS, 1920.

Laths, 2,877,992	...	...	£6,939
Poles and sleepers, 113,291	...	...	129,754
Palings, 37,220	...	...	539
Shingles, 3,586,472	...	...	7,189
Shafts, hubs, etc.	...	...	—
Wheels	...	...	21,903
Doors and sashes	...	...	20,607
Furniture	...	...	69,691
Handles	...	...	33,202
Mouldings and panels	...	...	6,849
Woodenware and turnery	...	...	112,851
Wooden matches, 184,885 doz. boxes	...	...	46,664
Wood pulp, 1707 tons	...	...	60,587
Printing Paper (coarse grades only), 18,580 tons	...	...	905,507
Resin, 1,085 tons	...	...	42,457
Tanning bark, 3,890 tons	...	...	60,587
Charcoal, 6 tons	...	...	247
Medicinal bark	...	...	11,801
Wood naptha, 6,377 gallons	...	...	3,965
Turpentine, 77,382 gallons	...	...	45,789
Turp. substitutes, 122,522 gallons	...	...	13,540
Acetic acid, 230,008 gallons	...	...	5,528

£1,655,876

A cursory examination of the slab heaps of most of the New Zealand mills will soon convince the expert that such articles as laths, handles, clothes-pegs, etc., the imports of which total some £60,000, could well be manufactured from this so-called waste.

Similarly the kawaka or mountain cedar might provide our shingle requirements.

The wax match industry is already well established in New Zealand, and there seems little reason why the wooden match should not follow: £46,000 is certainly an attractive figure for the manufacturer.

Resin and turpentine are complementary products and may be obtained from treatment of our kauri waste or possibly from some imported pines.

Private enterprise has investigated several problems of production. Satisfactory methods of obtaining a suitable tannin extract have been found; and it is hoped in one locality to utilise the whole waste of a beech forest for this purpose. Similarly a commercial plant for the production of acetic acid, charcoal, wood naptha, etc., is now being considered by a private company. Still another company for the manufacture of wood-pulp is in existence. The tests recently completed by the Imperial Institute regarding the suitability of New Zealand timbers for pulping have been fairly satisfactory, but the matter requires further consideration and is now being carried forward.

The item "Woodenware and turnery" in the foregoing list includes such products as veneers, 3-ply, etc. A small amount is manufactured already in New Zealand, but the markets would absorb many times our present output if available.

I have endeavoured in these remarks to indicate to some extent the many possibilities of establishing certain industries, and the list is by no means complete. The matter is of vital interest not only to the State Forest Service as a means of reducing waste, but also to the community in general, tending as it does to make the country self-supporting.

The above paper was read by Mr. A. Entrican, engineer in forest products of the State Forest Service, before the recent annual meeting of the New Zealand Forestry League. To our mind he might well have enlarged upon the question of importations of low grades tending to raise prices in future by causing lower utilisation, for this is a point upon which most timber users are lamentably ignorant. It were rather futile to urge upon sawmillers the need for higher utilisation if the heavy importations of low grade American lumber are to be allowed to continue, and thus displace the very grade or article that the sawmiller is urged to produce. He certainly cannot produce it if there is no market for it at a price that will at least cover its bare cost, and consequently low utilisation will continue and a vast amount of our lower grade timbers will remain in the worked-over bush to rot. However, we are pleased to note from current newspaper comment upon Mr. Entrican's paper that at last some editors are taking heed of this matter, for several used the headlines—"Danger of Low Grade Importations." Needless to say, the "conservationist" referred to who obtained such high returns from a medium piece of bush was more favourably situated than most sawmillers to secure such result, but it would not be amiss to urge upon all sawmillers the need to follow his example to the highest extent that their position and available markets allow. The State Forest Service and those engaged in the industry are indeed fortunate in having one of Mr. Entrican's ability and enterprising spirit to investigate these matters.

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