

for buildings and deckings, fencing, furniture, and small bridges. The sap is used for house lining and flooring. Value, £1 4s. per 100 sup. ft. Most of the trees that are left are to be found on Banks Peninsula; all used in Christchurch is imported from Havelock and West Coast. Miro is often sold as matai; the former is not such a good timber, and matai gets blamed for miro deficiencies.

12. *Brown-birch* (Beech, Tawhai raunui).—Grows on Banks Peninsula, Upper Waimakariri valleys, and in isolated places through the remaining forests. Cannot estimate quantity, probably 2,000,000 sup. ft. The same remarks apply as those in connection with the black or smooth-leaved variety, only I do not think it is such a durable timber. The acid in this wood renders the cutting of it tedious. Used for bridges (rough in mountain districts) and buildings.

13. *Black-birch* (Beech, Tawhai rauriki).—This timber forms the bulk of all forest in Canterbury. In accessible forest the quantity available as milling-timber is estimated at 23,000,000 sup. ft. In remote bush (only patches are suitable for cutting into milling sizes, the greater area being poles and scrubby trees) cannot estimate. A useful lasting timber if cut from matured trees and seasoned in the balk, otherwise it winds. I have seen black-beech which has been in the ground as house-blocks for sixty years at Port Underwood, Marlborough. Ordinary timber will last thirty years exposed, and indefinitely if covered. Used for bridge-timbers, fencing, buildings, heart railway-sleepers, and scaffolding-poles. Value, 15s. per 100 sup. ft. Only procurable from country mills. Not stocked as sawn timber by Christchurch timber-merchants.

25. *Red-pine* (Rimu).—Grows on lower altitudes of the Oxford and Glentui Forests, Banks Peninsula, and scattered clumps of bush throughout the district. About 650,000 sup. ft. in district. Durability depends mostly on the situation of the tree and its age. When grown on dry land its life of utility is double that of the timber grown in damp places. As weatherboards, thirty years' life. Sound timber under cover, fifty years. Used for building generally, and furniture. Value, 18s. per 100 sup. ft. The remaining rimu in this district is so much scattered that very little is now cut. The most of what is used here is imported from other districts.

26. *White-pine* (Kahikatea).—Grows on lower altitudes in the remaining forests in the Waiau, Ashley, Oxford, and Peninsula districts. About 225,000 sup. ft. in district. Durable for fifteen years in dry situations. Used for buildings, such as barns, sheds, &c.; butter-boxes, packing-cases. Value, 15s. per 100 sup. ft. Not a desirable timber for houses, on account of its liability to dry-rot; all used in this district imported from other parts of New Zealand.

32. *Red-birch* (Beech, Silver-beech, Tawhai).—Grows in Upper Waimakariri valleys, Amuri County, and Banks Peninsula. Will last thirty years if protected by cover, but will not stand in proximity to soil; will last well in water. This timber, if seasoned, should be excellent for the finer parts of cabinet-work. Used for coachbuilding, furniture, frames, &c., and fencing in the backblocks. Users import from other places. Worth probably as much as totara.

31. *Mountain Birch* (Beech, Tawhai rauriki).—In back mountain ranges. Used for fencing in the high country.

22. *Manuka rauriki*.—Banks Peninsula, and in clumps of bush occasionally met with along the coast. 100,000 sup. ft. (very approximate) in district. Very durable in water for piles; is not liable to attack from the teredo. Makes good tool-handles and fencing-rails. Used for frames for rough buildings, hop-poles, and fencing in swamps. Pieces suitable for wharf or bridge piles—say, 8 in. by 8 in., taper from 12 in. by 12 in., length 25 ft.; probably cost 3s. per lineal foot. For bridge-piles across salt-water estuaries I think it is the best timber we have in New Zealand.

24. *Kowhai* (New Zealand Laburnum).—Banks Peninsula, and along river-banks generally. A very durable but slow-growing timber; will last as posts and house-blocks for thirty to thirty-five years. Should be excellent for cabinet-work, on account of closeness of grain and readiness to take a polish. Used for fencing-posts, bridge-building, sleepers. Value of posts, 2s. 6d. each, and £2 per 100 sup. ft.

64. *Kotukutuku*.—Oxford, Ashley, Amuri, Banks Peninsula; generally in low moist situations. Very durable in proximity to soil; will last as fencing-posts twenty years if from matured trees. Used for fencing and house-piles. Value: Straining-posts, 3s. each; ordinary posts, 1s. each. The trees grow easily in damp places, and the timber is excellent for fencing. I think it should receive more attention. It also affords a fine protection (from fire) to other more delicate growing trees. This and the plant known as "wine-berry" (*Aristotelia racemosa*), I think, afford the best means of checking fire around growing forest. These two shrubs might be planted in all fire-belts to advantage.

68. *Broadleaf* (Puka).—Banks Peninsula, and scattered through other forests. 30,000 sup. ft. (small dimensions) in district. Very durable; matured timber will last thirty-five years in proximity to soil. Should be suitable for furniture. Used for fencing and house-piles. Posts are worth from £5 to £7 per 100 locally. The tree is generally very crooked, so much so as to prevent its usage for many purposes for which otherwise it could be adapted. It is easily grown, and should be cultivated for its durability.

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#### *Alford Forest District.*

20. *Southern Rata*.—Found throughout New Zealand under different conditions, in both high and low altitudes, and on both dry and swampy ground. Hard wood, adapted for fencing, bullock-yokes, and firewood. All in standing bush. There is a small quantity of rata, fit for stakes and firewood.

26. *White-pine* (Kahikatea).—Found mostly in low country, and also at higher altitudes, in the gullies. 10,000 sup. ft. on freehold, and 100,000 sup. ft. on Crown land. Soft wood; used principally