

VARIETIES OF TIMBER TREES, AND USES.

2. *Totara*.—Grows chiefly on ridges, up to an altitude of 1,500 ft., and on river-flats; the latter must be thoroughly dry. Has rare durability in and out of water. Used for the construction of bridges, wharves, marine piles, telegraph-poles, boat-building, furniture, shingles, posts and rails, wood pavements and kerbing. Value, 20s. per 100 sup. ft. One of the most valuable timbers in New Zealand. Chief defect, brittle. Easily worked. Resists the teredo. Grows to a height of 60 ft. Practically cut out in Nelson District.

4. *Matai, or Black-pine*.—Grows on river-flats of recent formation, where land is good, and thoroughly dry and rocky. 5,812,000 sup. ft. in district. Has great durability and strength, lasting in either wet or dry ground. Bark could be utilised for tanning purposes. Used for purposes of buildings, such as joists, flooring, piles, and studs; bed-plates for machinery, bridge-construction, railway-sleepers, and fence-posts. Value, 18s. per 100 sup. ft. Cannot be excelled for flooring for churches, theatres, and skating-rinks. Takes a splendid polish. Very scarce—a few clumps here and there throughout the district, but not obtainable in payable quantities.

6. *Cedar*.—Grows on swampy, poor land, intermixed with silver or yellow pine, and on mountain-slopes up to an elevation of 2,000 ft. 16,100,600 sup. ft. in this district. Very durable. Suitable for inlaying-work. Used for legs and sills for small bridges, fence posts and rails, piles, and small furniture. Value, 15s. per 100 sup. ft. Rarely exceeds 2 ft. in diameter in Nelson district. Resists fire to a remarkable extent: standing as a pile or telegraph-pole it will char in the outer skin, but will not burn. Its life is equal, if not superior, to that of matai or totara if the timber is from a thoroughly sound tree. Grows to a height of 50 ft. to 80 ft., except on swampy land, where it is stunted. Distribution mainly confined to northern portion of Nelson. Not obtainable in payable quantities.

3. *Totara kiri kotukutuku*.—Grows chiefly on ridges and high country; but is rare, there being a few odd trees throughout the Buller district. Similar to *Podocarpus totara*, but less durable. Used for same purposes as *Podocarpus totara*. Value, 18s. per 100 sup. ft.

8. *Southern Manoa*.—Grows on mountain ranges. Durable, but too small for industrial purposes. Used for posts, mine-props, &c. Grows at an elevation of from 2,000 ft. to 4,000 ft. above sea-level.

9. *Silver-pine* (Westland Pine).—Grows on sea-coast, and on poor swampy land; rarely on ranges flanking the coast, except in isolated clumps in rimu forest. 2,082,100 sup. ft. in district. Very durable and strong. Tar may be extracted from branches. Can be used for purposes of furniture. Easily worked. Used for railway-sleepers, fence-posts, bridge-piles, furniture, and house-piles. Value, £1 to £1 1s. per 100 sup. ft. Very limited supply, confined to southern portion of Nelson. Grows from 20 ft. to 40 ft. high. Considered the best generally useful timber in New Zealand.

10. *Yellow-pine*.—Grows on sea-coast and terraces. Usually in clumps, growing with cedar, on poor swampy land. 3,033,000 sup. ft. in district. Very durable. Much heavier than silver-pine. Used for railway-sleepers, fence-posts, piles, and in house-construction where durability is required. Value, £1 to £1 1s. per 100 sup. ft. Like silver-pine, possibly the most valuable timber in this district. Considered superior to silver-pine for sleepers. Will be cut out at no distant date. Grows up to height of 40 ft.

12. *Brown-birch* (Tawhai raunui, Tooth-leaved Beech).—River-flats where soil is light, sandy, and dry, resting on open shingle bottom, and on sidelings and mountain-slopes. Not necessarily on poor land. 2,236,888,080 sup. ft. in district. Very durable. If kept continually wet, would last from twenty-five to fifty years. When alternately wet and dry its life is from ten to fifteen years. May be used for wood-pulp for paper-manufacture, and distilling for acetic acid, tar, wood-naphtha, and the bark for tanning purposes. Used for bridge-construction, wharf-piles, beams, decking, sleepers, house-piles, floor-joists, fence posts and rails, and as mining-timber for leg-caps, stoping, lathes, stamper-beds, tramways, mills, palings, props, &c. Value, 13s. to 15s. per 100 sup. ft. One of the best timbers in the district if carefully selected. Warps if exposed to the sun. The best quality grows on flats where soil is light and sandy, resting on open shingle bottom. This timber, with other varieties of *Fagus*, comprises about three-fifths of the Nelson forest. Grows up to an altitude of 25,000 ft. above sea-level.

13. *Black-birch* (Tawhai rauriki, Entire-leaved Beech).—River-flats, low-lying localities, on sidelings and mountain-slopes. 651,229,000 sup. ft. in district. Less durable than *Fagus fusca*, but strong and tough, if not cut when immature. May be used for street-paving, or converted into wood-pulp for paper-manufacture, or distilling for acetic acid, tar, and wood-naphtha, or tanning purposes. Used for bridges and other constructive works, fence posts and rails, building-timber, mining-props, and spokes of wheels. Value, 13s. 6d. to 15s. per 100 sup. ft. Confined principally to northern Nelson district. There is great difference of opinion respecting the durability of this timber; it is not a favourite timber with sawmillers. Great care requisite in seasoning. Grows up to elevation of 2,500 ft. above sea-level.

14. *Tawhai*.—Same as tawhairauriki (above).

15. *Black-birch* (Tawai, Blair's Beech).—Grows on wet, sour ground, resting on coal-measures or old-man bottom (Pliocene). Decay sets in quickly when put to use. May be used for the same purposes as *Fagus solandri*. Used for mining purposes. Designated "black" or "swamp birch" in Inangahua County. Supply very limited.

19. *Northern Rata*.—Grows on rich soil, river-flats. Very durable in dry places. May be utilised for coach-building, railway-carriages, machine bearings and beds. Used by settlers for firewood. Very scarce; grows at Karamea and Brighton, Buller district.