

called subtropical, others subantarctic. Tussock occurred in the low-rainfall areas of Otago, Canterbury, and Marlborough, and on the porous pumice soils of the interior of the North Island. The bush was a dense rain-forest (except in the South, where the beech was dominant), and included a mass of tall timber trees, a tangle of medium-sized trees, looped lianas, massive parasites, and tree ferns, and a host of low ground plants. North Auckland had its typical taraire and kauri; but the main North Island forest was composed of the pine family—rimu, totara, matai, miro, and kahikatea—together with the tawa, kamahi, and rata.

In the South, these tall timber trees were largely replaced by the frost-resisting beech, though the subtropical and subantarctic zones dovetailed to a large extent. Beech were found in the Rimutaka, Tararua, and Ruahines, and pines occurred as far south as Stewart Island. In general, however, the beech was confined to the steep alpine slopes, too dry and too high to support other vegetation. Even the beech gave way to the tussock in the lee of the Alps and over the plains of Central Otago, the Mackenzie country, and the Canterbury Plains. The line of contact between the tussock and forest was sharply defined, but never regular owing to the ups and downs of the country.

The earliest Europeans found more than half the South Island, or almost 25,000 square miles, a yellow-brown sea of tussock, extending from the east coast to the foothills up to about 4,000 ft. Low rain fall, wide temperature ranges, and dry winds encouraged it. The various kinds of tussock grasses had company in the tumatakuru, spear-grass, and gaunt cabbage-trees, while herbs, sedges, and grass sheltered in its shadow. This band of hardy plants reduced the effects of the wind, held the soil, and preserved the moisture in it. The land suffered no deterioration.

The Maoris, besides being few in numbers, employed a conservative agriculture. They had few cultivable crops, and the chief of these, the kumara, would grow well only in the North Island. They cleared patches of fern land and perhaps bush, and planted the kumara and taro,

but their main food-supply came from the edible fruits and berries of the forest, from birds, and from the fish in the rivers, lakes, and sea. The forest of Tane was sacred and was preserved by a tapu stronger than our own laws.

Europeans, before 1840, destroyed all they touched. The seals were killed off, the cachalot whales decimated, kauris and kahikateas were exported as spars. The missionaries introduced the European system of cultivation. But no real disturbance of the land took place till the Wakefield plan of settlement took effect, with the foundation of Wellington, New Plymouth, Nelson, and Wanganui, together with the settlements in Otago and Canterbury. In 1853, inauguration of cheap land deals caused large-scale expansion of European influence, and with it the destruction of the native vegetation. The land was sacrificed to the get-rich-quick greed of the squatter, the gold-miner, the sawmiller, and the "bonanza wheat" farmer. The South Island, carrying the least bush cover, was easier to exploit and so was the first to profit from the stimulus proffered by Australia at this time.

1851, gold in Australia. From all corners of the world men came to make their fortunes. But you can't eat gold. So other men became rich by selling food and clothing to the gold-diggers—wheat for bread, sheep for meat and wool. Runholders in the South Island waxed fat on the "golden fleece" and on the bonanza wheat.

Land—land—more land. Gradually the runs bit deeper till they licked at the feet of the Alps. But the tussock wasn't enough for even the hardy Merinos. "Burn the tussock—increase the flocks so that they will eat the tussock. The tussock is useless." But those bold pioneers didn't reflect that by shaving the tussock they bared the soil to the wind, and the soil reacts as a face would. It chaps—but flakes of skin become shingle slips and land slides; erosion licks his chops.

Until 1875 the South Island tussock plains were given over to sheep, but after that date the population increase due to the gold rushes and a new export trade to Australia rocketed the demand for