

brimstone colour; the edge and keel is of an orange colour. I think this is a sport, as some of the leaves of the plant are often found green or very partially striped; the fibre is very good.

*Manunu* has a short leaf and black edge.

*Atewhiki*.—This plant is easily distinguished; the leaf is narrow, has a reddish tinge, and a narrow line of bright scarlet on the edge and keel; the fibre is very white.

*Taiore* is abundant in the Opunake District; the leaf is a light green, and has a wide black edge; it is easily distinguished.

*Tito-o-moe-wai* has a long red-edged leaf, the point of which falls over.

*Takaiapu*.—The leaf stands erect, has a brown edge; the fibre is very strong, and is used by the Natives for making fishing lines.

*Ngutunui*.—The leaf similar to the last but has a blunt point, and is red at the butts when split.

*Huruhuruhika* bears a general resemblance to the *Takaiapu*.

*Korako*.—The leaf is of a dark green, the edge has a narrow line of dark brown, which appears black, the keel is a pale yellow.

The following list of names have been given by a Native of Taranaki as the best varieties, and formerly used by the Natives for making the best garments; all the other kinds, he stated, were only used for making rough garments and ropes:—

*Parikoritawa, Huhiroa, Oue, Atiraukawa, Atewhike, Korako, Ngutunui.* To this list other names are added by Natives from other districts, namely—*Rataroa, Taiore, Manunu, Takaiapu.*

Mr. Kelly thinks that the following are the quickest growers of the best varieties, and arrive at maturity earliest, namely—*Atiraukawa, Huhiroa, Ngutunui,* and *Rataroa.* He adds, "All the varieties grow from seed naturally. I have been told by the Natives that they have tried to propagate the best plants by sowing the seed, but have always failed; and it has always been to them a mystery how it was that young plants sprung up where the earth had been disturbed by them when they took up roots for transplanting, and yet they could not get the seed to grow. I think the explanation is a simple one. The conditions necessary to the germination of seed were not fulfilled by the Natives, who, I suppose, had sown them in a seed-bed in the usual manner, and were not embedded in a rich vegetable mould, and kept in that condition of moisture and shade which the seed shed from plants growing in good soil generally obtains. The disturbance of the soil and the letting in of light, by taking away roots for transplanting, probably hastened the germination of those seeds which had been subject long enough to the above condition. I have sown seeds of the *Huhiroa* in an ordinary seed-bed, and although I found that a few germinated, they invariably died off when about two inches high, which I attributed to want of shade from the sun, and a want of uniform moisture in the soil. The Natives also observed that after a fire the young plants came up vigorously."

Mr. Schnackenberg, of Raglan, mentions several other varieties, and considers that the *Ngaro*, which has a black border, is the best of all the kinds for all purposes, and yet none of the other Returns mentions this variety in terms of commendation.

Mr. Locke again says that *Tapoto* or *Takirikau* is sometimes called *Tihore* or *Takiri*, and considers this the best variety known to the Natives on the East Coast. He states, however, that it has scarlet edges, while Mr. Nairn says the article bearing the same name in his locality has a deep purple margin; and Mr. Jenkins says it is a dark-green plant, and much smaller than the other kinds named by him, and is not profitable to dress by machinery. It is difficult to reconcile such statements except by the supposition that *Tihore* is the name of a class and not of an individual plant.

After the *Tapoto* or *Tihore*, Mr. Locke classes the *Oue* and *Wharanui* as next in value, but of these Mr. Armstrong does not give the relative quality of fibre turned out from the same quantity of green leaf. Whether *Tapoto* and *Tihore* are the same cannot be said at present, but Mr. Armstrong shows the quantity of fibre in each is nearly the same.

Mr. Maning, of Hokianga, says that a preponderance of fibre is indicated by the leaf assuming a light colour approaching to straw colour. The only thing, therefore, which intending purchasers of seed or roots can do, is, to ask parties resident in, or acquainted with, the flax districts to select the best kinds for them.

In conclusion, under this branch of the subject, it may be suggested that great care should be exercised in commencing the cultivation of flax, as it is a very expensive operation, and two or three years must elapse before any return can be got. It is also quite certain that exaggerated ideas are everywhere entertained as to the quantity of flax in each locality, and persons have gone into the business in the belief that they had an unlimited supply for several machines, when it turned out, after commencing work, that there was not enough for one. Cultivation must therefore, in such circumstances, be encountered at once; but it should be done judiciously, and according to the means at the disposal of persons commencing the operation. In this way alone will failure be averted, and a permanent supply kept up. Captain Hutton estimates that on good flax land (uncultivated), such as is to be found in the Waikato, about four tons of green flax can be cut per acre, without injury to the plants, where it has not been cut before; so that from 150 to 200 acres of good flax land are required to keep two machines going for a year; and as it is far from certain that the second year's crop will produce four tons per acre, the Commissioners do not consider that it would be prudent to put up a mill without previously securing from 400 to 600 acres of good flax. This would produce from three to four tons per week of fibre.

The question of fencing the cultivated ground must also be considered and provided for. Cattle will not only destroy the outer leaves when food is scarce, but also the very life of the plant, by eating the heart of it. This is an undoubted fact; indeed it was the mode which the cow used to get the epidermis off the fibre which suggested to Mr. Whytlaw the machine he invented for dressing it. It is therefore suggested, with a view of rendering the natural flax fields permanent, that security of tenure should be given to all who hold leases of the Crown, and, as far as possible, security of tenure of flax land substituted for licenses to cut flax.

The reckless burning of flax land should be put a stop to by legislative authority.