

practice. To be able to demonstrate to the millers the best way of cutting for the plant's future growth I selected in the mill block at Miranui four plants of the same variety, size, and amount of fans, and cut them on 28th March, 1922. The first one was cut in the manner favoured by the working cutters; the second in the way the swamp-manager likes to cut (at Miranui the phormium has not been cut so low as at most other mills); the third 4 in. higher than the second and 8 in. higher than the first plant; and in the fourth the side or mature leaves only were cut.

At present, after a year's growth, the difference is so striking that one can see it from a distance. In the first-cut plant three fans have

died, and in the remaining fans the leaves are small, spindly, affected by disease, and of a sickly yellowish-green appearance. The second plant has not lost any fans, but the leaves are very small and much affected by different leaf-diseases. The third is much bigger than the two first plants, and is very vigorous and healthy looking. The fourth plant, with the side leaves cut, is the best, although the side leaves were cut again in August, 1922.

It may be mentioned here that when I showed Mr. Alfred Seifert these plants, after they had grown for about three months and the difference in the growth could be plainly noticed, he informed me that he had tried (but not followed up) the side-leaf or mature-leaf method of cutting on a quarter of an acre at Piaka, in the Moutoa Swamp, some twenty years ago. Later he showed me a fifty-year-old volume of parliamentary papers in which was given in full the report of the first Commission on the phormium-fibre industry, in 1871. In the report it is recorded that a Mr. Nelson, of Napier, advised cutting the mature or side leaves, but no reason is given for such method.

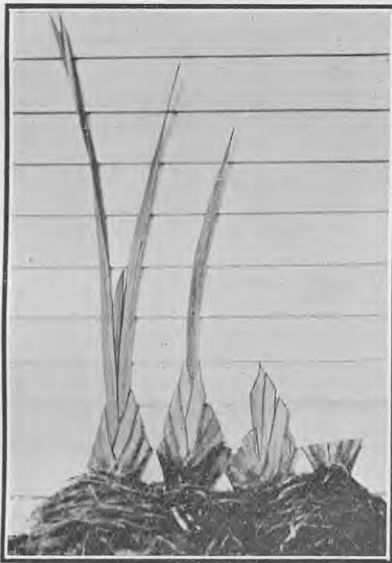


FIG. 2. SHOWING METHODS OF CUTTING PHORMIUM-PLANT.

From left to right—(1) Side leaves cut, with two middle leaves and centre shoot left intact; (2) fan cut diamond-shape, with centre leaf left; (3) cut diamond-shape; (4) common method—whole fan cut level.

[Photo by H. A. Seifert.]

In order to obtain more evidence against the existing bad method of cutting I counted the dead leaves in four-year-old and five-year-old blocks of phormium, and found by a series of twenty-seven counts that where 100 tons of leaf is cut there is about 120 tons lost in dead leaves. It is easy to understand this if one is aware that the fan produces nearly every month a new leaf (there is an exception of one