to three months in the year, depending on the variety). The life of a leaf is about one year and nine months at the most.

In order to demonstrate on a more practical scale the importance of the method of cutting I measured off in the swamp, where the cutters were cutting for the mill, plots of $\frac{1}{20}$ acre each for diamond-shape cutting and for side-leaf cutting respectively. These plots were cut on the same day as the cutters cut adjoining phormium. The leaves in the plants cut diamond-shape were cut just where they start to separate from the sheath. In the side-leaf cutting the leaves were cut at the same place as in the diamond-shape cutting, except that the two middle leaves and the centre shoot between them were left intact. At date of writing (May) there are on the side-leaf-cut plant four to five full-grown leaves, which have grown since the cut was made in October, 1922. I also, in November, 1922, cut an area diamond-shape with the centre leaf or shoot leaf intact, at the time when the cutters cut the adjoining phormium.

Mr. Alfred Seifert is the first miller in New Zealand to definitely adopt the side-leaf method of cutting. He started to cut in this way (for the Miranui mill) on 4th January this year, has kept two strippers running continuously, and will continue cutting all the year round. Mr. Seifert's opinion is that, taking into account the increased yield obtained by side-leaf cutting, it is commercially advantageous to adopt this method. By side-leaf cutting it is possible to harvest three times more phormium in four years from a given area than by the old wholesale-chopping method. There are also other advantages of side-leaf cutting which may be dealt with later.

FUTURE WORK AND POTENTIAL RESULTS.

There have been tested at the Miranui mill twenty-two varieties of phormium, among which the fibre-content varied from 2·5 per cent. in No. 10 to 16·8 per cent. in No. 12 in those from Miranui and Whitaunui Swamps, and up to 18·8 per cent. recorded for the "bronze" variety (see preceding table).

Dr. B. D. Cross has identified forty-two varieties of phormium, and the Maoris about sixty, so there are from twenty to forty varieties to be tested yet. There may be varieties which greatly exceed even the above-mentioned 18·8 per cent. Numbers 1, 2, 12, 13, 14, and 15 seem to resist the yellow-leaf disease, but there may exist absolutely disease-resistant varieties. The next most important step in the investigation is therefore to obtain as far as possible plants of all the existing varieties in New Zealand, also in Norfolk Island.

In order to make the breeding and selection branch of the investigation self-supporting it will be necessary to plant from 10 to 20 acres of phormium—one-half of that area to seedling plants and the other to selected plants from the swamp. The land has to be well prepared before planting, and after planting cultivated as long as the growth of the plant permits. This work will have to be done on proper farming lines on a strictly commercial basis to ascertain the profitableness of phormium when grown as other farm crops. Once it is practically demonstrated that good profit can be derived from phormium-growing people will start to cultivate it, and there will be a demand