

An application having been forwarded by you from the Secretary of the Canterbury Flax Association for a collection of plants of the best varieties of *Phormium*, three hundred strong plants were forwarded in September, 1871, and at the present time some thousands of both seedlings and matured fans of the best varieties are ready for distribution.

During the past year the Nursery has been visited by many persons interested in the manufacture and growth of *Phormium tenax*, all of whom have expressed their surprise at the luxuriance of its growth and the utility of the nursery.

I am happy to state that the expense for the year has been considerably within the estimate, and does not exceed the sum of £6 12s. 6d. Even this, if we take the value of the donation to the Canterbury Flax Association into account, will present a much smaller figure. Details of the expenditure I enclose herewith.

III. CANTERBURY.

INTERIM REPORT ON *Phormium tenax* cultivated in the GOVERNMENT DOMAIN, Christchurch.—By JOHN F. ARMSTRONG, Government Gardener.—31st July, 1872.

In July, 1869, I received from the Government 852 plants of *Phormium* from Hawke's Bay, and twenty-four from Taranaki, which comprised the following ten varieties, viz:—*Oue*, *Tihore*, *Tapoto*, *Huhiroa*, *Atiraukawa*, *Akewiki*, *Korako*, *Rauhangara*, and *Itatuwa*.

These were planted on a piece of ground dug two feet deep, in rows six feet apart each way, and grew remarkably well the first season, but unfortunately they proved to be too tender for the open ground in the Domain. The leaves made in summer were invariably destroyed by the hard frosts of our southern winter, and they will probably die out in a year or two. Of course, under these circumstances, they are not worth importing into Canterbury,

About the same time, 100 plants of the common dark-edged variety growing about Christchurch were planted near the others, under precisely similar conditions, which in two years gave a yield averaging thirty tons of green leaves per acre.

Experience has shown me that the seed of *Phormium tenax* should be sown as soon as ripe, say in March, in the richest soil available, in drills six inches apart, and not more than half an inch deep, and the ground kept perfectly free from weeds. When the seedlings are six inches high they should be finally transplanted. I have raised thousands of seedlings without any difficulty whatever, and in no case do I ever soak the seeds.

IV.—REPORT BY A SUB-COMMITTEE ON THE PHORMIUM PLANTATIONS OF THE CANTERBURY FLAX ASSOCIATION.—31st July, 1872.

The Association's Plantation in Antigua Street.—The extent of ground under cultivation comprises about one acre, the subsoil being clay, with a rich peaty soil on top; although only planted during the months of September and October last year, the whole of the plants exhibit signs of vigorous growth. Over 3,000 plants were put out, and were planted in clumps of three. The leaves, as measured now, vary in growth from two feet six inches to four feet six inches. That portion of the ground which has been kept clean from weeds is found to be more favourable to the plants stooling out than that which has not been similarly treated. Several of the plants which were put out as late as November last exhibit a more stunted appearance, but still show signs of having taken a good hold of the soil. The plants forwarded by the General Government from Mr. Hulke's Nursery at New Plymouth, have not grown in the same proportion as the Canterbury plants; this, however, may partly be accounted for from the length of time they had been lifted, and the state in which most of them were received; and they had, moreover, to contend against an unusually dry summer.

The Plantation in the Government Domain.—The plantation in the Domain is under the charge of Mr. Armstrong, the Government Gardener. The plants here, indigenous to the Province, are growing in a most luxurious condition. Upon measuring some of the leaves, they were found to have reached a height of from six to seven feet, and are remarkably clean and smooth from tip to stem, which is something astonishing, considering that the plants have not been in the ground quite two years; and so dense are some of them, that a man of average height is quite lost to view. The plants from the North Island appear to be less rapid in their growth, although showing signs of great vigor; but the *Tihore* and *Tapeto* varieties show the most marked improvement in this respect.

Some of the Canterbury plants have been cut, the bushes yielding half a hundredweight of sound leaves to each plant. The Sub-Committee strongly recommend the growing of the Canterbury flax, as it is found in two years time a first crop could be cut, yielding on an average twenty-five tons or more to the acre, which would be worth, say at 5s. per ton, £6 5s. per acre, the only expense attending which would be the first planting of the stools, and subsequent occasional cleaning of the ground, until such time as the plants appeared to be fairly established.

The soil in the Domain is of a sandy nature, on a shingly bottom.

In the course of another year, a correct record can be made of the further growth of those plants which have been but recently cut down.