

SALE OF FLAX IN AUCKLAND.

Much of it is sold by auction by Mr. A. Buckland, and the best brands now realize as much as £20 and £22 a ton. Inferior qualities are sold sometimes as low as £11 and £12, which cannot pay the working expenses of any mill.

Mr. Roberts is buying agent for a Sydney rope-making company, and has paid as much as £13,000 for the fibre within the last three years. He does not think that the fibre can be made available for spinning purposes. He pays from £15 to £20 a ton at Auckland, and prefers Murray's and Keleher's, of the Mauku, and Thompson Brothers, of Tuakau, to any other manufacturers. A soft fibre, though of inferior colour, is best suited for tarred rope-making; and the hill flax is much superior to that which is taken from swampy low ground. Has seen a variety of superior small samples from different inventors, and has offered as much as £40 a ton for quantities of the same quality, but has never succeeded in getting any.

Tarred rope, made from New Zealand flax, is sold at £36 a ton in Sydney, and white rope at £42. The Manilla hemp imported into Sydney fetches £49 a ton there.

IX.—ON THE CULTIVATION AND GROWTH OF PHORMIUM TENAX.

THE MAORI never cultivated the *Phormium* with the view of improving the quality or quantity of its fibre. It was only those who lived in the bush, or at inland settlements, where flax did not abound, who took the trouble to make plantations near their villages. Those within easy reach of any large flax field were able to procure what they required from the choicer varieties that are always to be found growing in those places. At the present time flax is rarely transplanted by them, as they no longer depend on this material for their ordinary clothing, and require but very little of the better qualities for their fine mats and other ornamental purposes.

The majority of Europeans who are concerned in the flax industry have paid little or no attention to its cultivation. The extensive flax fields, in their natural state, have hitherto been amply sufficient to supply all that they have required; and the low prices in the English markets have so limited the production that there has been no prospect of a scarcity of the raw material; and the manufacturers are unwilling to invest more capital than is barely necessary for machinery, plant, and working expenses. But there are a few who have thought it worth while to expend time and money either in planting considerable tracts of land, to prepare for a future greater demand, or in making experiments on a small scale to observe and note the growth, and to test the possibility of improving the plant; or of raising a supply by cultivation with profit and advantage.

EUROPEAN CULTIVATION.

Mr. Finnimore planted some thirty acres, near Wanganui, at a considerable expense; and Mr. Hirst states that the Patea Flax Company expended £437 in cultivating 75,000 plants of the best varieties, on twenty-five acres of land; but in both instances the outlay was so great and the prospect of pecuniary success so small, that the plantations have subsequently been neglected, and it is doubtful whether they will be maintained.

Mr. Constable of Waiuku, near Auckland, in September, 1868, planted about half-an-acre of land, of fair quality (though rather dry for flax), which he had carefully prepared and manured, with three varieties of *Thore*; and in May, 1871, these were healthy and vigorous, and, in some cases, had thrown out twelve and thirteen, and in one instance, twenty-two fresh fans; but the majority would not average more than five or six. When two years old a few leaves were dressed by the ordinary mill process, but the fibre was not superior to that obtained from common swamp flax, as it was harsh and brown. The breaking strains were—*Rataroa*, 86; *Oka-oka*, 77; and *Ngarowaka*, 61.

There is a plantation of the same age in the Domain Gardens at Christchurch, the plants having been procured from the North Island; but these have not been so prolific, owing either to colder climate or to the growth of the sets having been retarded, by having been carelessly removed and kept a long time out of the ground during transit. One variety (name not known) has been quite cut down by the frosts, showing that it is too tender for that part of the Colony.

Mr. Hulke, of New Plymouth, has formed a nursery of 2,000 plants, of the best varieties, in three-quarters of an acre of ground, which he offered to make over to the Government on condition of being re-imbursed for his outlay, and he undertook to superintend its management if a sum not exceeding £20 a year was provided for working expenses. This offer, on the recommendation of the Commissioners, has been accepted, and the plants are now at their disposal for distribution and experiments. There are also a quantity of seedlings, which have grown very well, but cannot be depended on as useful varieties, and they will take a much longer time in coming to maturity than those plants that have been raised by off-sets from approved and established bushes. Other persons have also sown flax seeds, with no more favorable result. In many private gardens a few plants have been introduced, and carefully attended to. In Dr. Hector's and Mr. Mantell's gardens at Wellington, sets of variegated flax that were planted two years ago have now from three to six fresh fans, and one of *Manunu* that has been in the ground seven or eight years has forty-four. Some plants of the same variety, which were planted more than twenty years ago in the garden now belonging to Mr. Quick, have increased one hundred fold.

Messrs. Nelson, at Napier, have also planted flax, and sets that had been in the ground seven months had sent up four and five leaves, and occasionally two or three fresh fans. But in all these cases of recently planted sets, they have not reached the length of leaf and vigour of the old bushes, though the leaves become larger as the roots increase, and are better established. This proves that increase is not sufficiently rapid, nor vigorous and luxuriant enough to justify a hope that cultivated flax will yield a fair crop of leaves within four years, which opinion coincides with that expressed by many of the Natives themselves.

A portion of the Botanic Gardens at Wellington has been set apart for the cultivation of flax, at the cost of the Commission. Seeds from seven varieties, from Taranaki, were sown on the 4th November, 1870, and were above ground on the 24th of the same month. In April they were planted