

quotations for the two grades was as small as £1 per ton, and though it has slightly increased it is still far less than the difference in the respective values of the grades. Under such conditions many millers were content to aim no higher than the high-fair grade, and frequently some defect occurred which caused this grade to be missed and the fibre adjudged low-fair or perhaps common grade. In still greater measure has the production of an inferior article been due to careless workmanship on the part of the millers.

It is to be regretted that many millers endeavour to make their output as close to the bare requirements of a grade as possible, instead of trying to produce a fair average sample. Such lines have a very detrimental effect on the market, and also make it exceedingly difficult to know exactly where one grade begins and the other one ends. Some millers, however, are worthy of much commendation for the high standard of quality of fibre reached by them. These evidently have the welfare of the industry ever foremost in their minds and study the most advantageous methods of production in every detail, so that their fibre is not only suitable for binder-twine, &c., but may come into use for the manufacture of commodities of higher value, and thus ensure a steady demand.

In point of quality Marlborough district still retains the premier position, followed closely by Canterbury and Wairoa (Hawke's Bay). Southland millers also deserve praise for the satisfactory standard of hemp milled by them during the past year. Compared with the previous year good-fair has increased from 8 per cent. to 37 per cent., with a corresponding decrease in low-fair of from 44 per cent. to 13 per cent.

Washing and Bleaching of Fibre.—In many cases there is not sufficient care exercised in this branch of the milling process—a branch in which it is impossible to be too careful, especially in the production of a good quality of fibre. The fielding or bleaching is also neglected in many instances, it being quite obvious that the hanks of fibre have been too thickly spread. This practice allows the fibre to retain certain undesirable matter—especially the acid natural to the leaf—not already removed by the washing process, and thus prevents the fibre from being properly bleached.

Another defect arises from the spreading of fibre on bare soil, or from allowing it to become covered with long grass. This causes it to become discoloured and detrimentally affects its strength. Bleaching under such conditions is difficult and unsatisfactory, and many lines of hemp, although well stripped and scutched, have to be awarded very low grades for these faults.

Dressing the Leaf.—While the improved “spring-spindle” strippers have eliminated one of the chief drawbacks to the preparation of phormium—the bruising and breaking of the fibre—there is a tendency under the new method to go to the other extreme and produce a fibre of too coarse and wiry a character. Not only is the body of such fibre too strong, but it is very difficult, owing to the incomplete elimination of the vegetable matter, to secure a good colour. There are already quite enough coarse fibres on the foreign markets, and manufacturers look to the better grades of New Zealand phormium to provide them with a soft free thread.

These improved machines have worked a revolution in stripping, owing to their having obviated the rigidity which caused the bruising of the fibre; but care must be taken that too much “give” is not allowed, so that while the fibre is free from bruises and straws, it is thoroughly stripped. Unfortunately, there is more or less cause for complaints from the manufacturer in this connection.

Unsatisfactory Scutching.—Unsatisfactory work in scutching was again very much in evidence during the past year. As this branch of the work is invariably done under the contract system the tendency is, generally, to aim at quantity rather than quality, with the result that during the year many lines had to be placed in a lower grade than that which the quality of the body of the fibre merited. During the past few years faulty work in this part of the milling process has been responsible for nearly all complaints received from manufacturers, who complain bitterly of this weakness in our fibre.

The tails of the hanks consist of fibre extracted from the tips of the leaves which, being finer than the body of the blade, have a tendency to pass through the stripper without being properly treated. As a result the body of the fibre bleaches more rapidly than the poorly stripped tail, and in most cases effective scutching is impossible unless the tails are clipped or fine hackles attached to the beaters of the drum of the scutcher. Hackles are used in practically all the mills in the South Island to eliminate the tail trouble, but so far this method has not been adopted by the millers in the North Island.

The classing of green leaf also does not receive the attention that its importance deserves. In a great many cases short, long, and diseased leaf is fed indiscriminately into the stripping-machine, so that when scutching the resultant fibre it is impossible to treat the shorter lengths contained in the hanks. In such a mixture the long and well-scutched good fibre has to be graded down with the inferior. To overcome this difficulty and ensure uniform scutching it is absolutely necessary that the green leaf should be sorted into uniform lengths before being stripped, and if this method were adopted by millers the resultant fibre would be of an even and better quality, and more appreciated by manufacturers.

Tow.

The quality of the tow produced during the past year was satisfactory, but at the same time fully 50 per cent. of that placed in No. 2 grade would, had a little more attention been paid to the shaking of this by-product and so getting rid of the dust, have been awarded first grade.

There has been an exceptionally big demand for tow during the past year, and the prices received have been very good, being an increase of £6 per ton on each grade as compared with the previous year.

Stripper-slips.

Owing to the high prices ruling for tow during the past year stripper-slips were more in demand, and the whole of the output was purchased by the Maitai paper-mills, Otago, the average price being £6 per ton f.o.b. Wellington.