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# INVESTIGATION INTO THE PROPERTIES OF SRI LANKAN VEGETABLE FIBRES

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REFERENCE ONLY



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## ABSTRACT

Four fibre types Pineapple, Sansevaria, Roselle and Akund were extracted and properties such as fibre dimensions, morphological characteristics, physical properties including tensile properties and behaviour towards some selected chemical reagents were studied.

The strength characteristics of fibres range from 33- 42 g/tex indicating fibre types were strong enough to be considered as textile fibres. The extensibilities observed were in the region of 2.7 - 4.9% which seems quite adequate to withstand the forces encountered during processing. It was apparent that all fibres except Akund showed very good elastic recovery properties. The recovery of Akund was only 40% at 1.5% elongation.

The effect of storage conditions on fibre properties were also studied. The extent of reduction of strength and elongation when fibres were stored in standard atmospheric conditions is much less compared to the effect of variable atmospheric conditions with a temperature range of 27 - 32°C and a humidity range of 65 - 85 %.

Based on fibre properties studied, possible use of fibre types for different end uses were suggested. The economical viability of using the fibre types considering factors such as availability, fibre extraction, cost and yield per year per hectare were also discussed.