

Mechanical properties of sisal (*A. sisalana*) relevant to harvesting and fibre extraction

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■ **ABSTRACT** : The mechanical properties of sisal leaf (*A.sisalana*) relevant to leaf harvesting and fibre extraction were determined. Measurements of leaf bending resistance, friction coefficients and mass distribution were made to get information for designing of leaf handling equipment. The leaf cross-sectional area at 7 cm from butt-end was 11.65 cm². Fibre content of leave varied from 3.0 – 4.0 % of fresh green leaf weight. The mean fibre bundle strength was 32.31 g/tex and fibre fineness was 4.92. The coefficient of friction of sisal leaf was lowest on mild steel surface for tilting panel test (0.054) as well as for horizontal test surface (0.464).

■ **KEY WORDS** : Extraction, Fibre, Harvest, Physical properties, Sisal

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