MECHANICAL EXTRACTION OF PALMYRAH FRUIT PULP

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There are little over ten million palmyrah palms in Sri Lanka. Annually about 125 million fruits are produced each weighing about 0.7 kg. The pulp contributes about 40% by weight and contains 8-10% sucrose[1]. Palmyrah fruit pulp has been traditionally extracted by hand. This is a time consuming and strenuous process which limits the utilization of fruit pulp. Hence a mechanical palmyrah fruit pulp extractor was developed for our specification by Samuel Sons and Co. Ltd., Jafna. This extractor had square blades joined to the shaft inclined at an angle to the verticle through rods. The shaft was connected with a 0.75 horse power motor. A gear box was used to regulate the rpm.

Using this extractor, the manual and mechanical extraction of pulp were compared. The rate and cost for manual extraction were 12 min $fruit^{-1}$ and SIR 1.0 $fruit^{-1}$ respectively. By mechanicaly, the rate of extraction increased to 0.5 min $fruit^{-1}$ and cost reduced to SLR 0.10 $fruit^{-1}$. The amount of pulp extracted per fruit by manual and mechanical processes was 0.62 kg with 11-13% brix and 0.84 kg with 9-10% brix respectively.

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References: Jegnathan, N. (1985). Paper on palmyrah fruit. Submitted at the work shop on palmyrah sponsored by the FAO and PDB Sri Lanka.