Central Food Technological Research Institute, Mysore – 570 020

Sugarcane de-skinning machine

1. Introduction:

India is world's leader in sugar production but uses age old traditional technology. Our country holds perhaps, a second position in the production of sugarcane, next only to Brazil. Frequent occurrence of drastic fluctuations in sugar production is a cause of concern for its effective utilization. Mini sugar plants (Khandsari units) have received little attention for technology upgradation. They can function as efficient supplementary production facilities with the application of modern methods of sugarcane processing. But, the major problem is the fermented smell that develops during storage, which is mainly due to waxes present on the skin.

Manual de-skinning is highly laboured intensive and tedious. Hence, it is proposed to fabricate a proto-type semi commercial unit for de-skinning of sugarcane. The performance of this machine will be evaluated by the preparing sugarcane juice with and without de-skinning. Jaggery will be prepared after de-skinning to demonstrate the improvement of the quality. The de-skinning machine, when installed and implemented at the rural level, will have far reaching benefits in terms of hygiene, better product quality and better premium for diversified products. Also, it will have a greater impact in the urban industrial scent where sugarcanes are processed into nutritive soft beverages.

2. Raw Material:

MS. Angles, SS sheets, Bearings, Motor, Pulley

3. Project Cost – Fixed Cost – Working Capital (Rs. '000) (Estimate for a model project)

a)	Land & Land development (240 m^2)	60.00
b)	Building and civil works (120 m^2)	480.00
c)	Plant and machinery	850.00
d)	Miscellaneous fixed assets	50.00
e)	Pre-operative expenses	200.00
	Total Fixed Capital	**1640.00**
	Working capital margin	100.00

Total Project cost		**1740.00**
Means of Finance		
- Promoter's contribution	660.00	
- Term loan	1080.00	

4. Production Capacity-(estimate)

Machine	: 125 kg/ hour, 0.75 Kw
Suggested economic capacity	: 1 Tonne/ day
Working	: 8 hour shift
	20 machines/ year working for 10 months

6. Technology / Manufacturing Process -Availability

The technology for processing of Sugarcane de-skinning machine has been developed at CFTRI, Mysore using appropriate equipment optimal product recovery of right quality. The institute has the necessary expertise to provide technical assistance and guidance for setting up the project and implementation, under technical consultancy arrangements.