Chemical Retting of Coconut Fibre

Background


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Benefits / Utility

- Backwater retting can be avoided so that water and air pollution due to the back water retting can be stopped.
- Manual and hazardous conditions of conventional retting can be avoided.
- Labour involvement is lessened.
- The time of the treatment is reduced to 2 h instead of 9-11 months.

Scalability

Scale of production is 5 kg per batch which may be increased even up to 30 kg per batch.

Potential investors to this technical innovation

- Entrepreneurs associated with coconut fibre sector, NGO
- Farmers co-operatives.

Financials

Total Capital Investment (excluding Land and licensing fees): Rs 40 lakh approx.
- Break of capital investment: Machine: 15 lakhs; Land: 100 m2 land and 50 m2 shed: 20 lakhs; Variable cost (per month/unit): Rs 4,00,000/- approx.
- Break of variable cost: Chemicals: 2 lakhs; Raw Fibre: 1 lakh; Labour: 3 unskilled labour / day: 30,000/-
- Energy: Not calculated.
- Expected sale/unit: Rs 25/kg. No. of units to be sold for monthly break even on variable cost: 3 unit.

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Social impact of the technology

“Retting”, requires large unskilled labour force. This work is very unhygienic as the workers have to work in a polluted air and water containing phenolic compounds, H2S, and different microbes. The whole process of dehusking, dipping husks bundle inside back water and removing of wet husk, extraction of fibre from husk are done manually. These are very laborious and unhealthy work causes drudgery to the women workers. So a captive chemical softening can