

COIR FIBRE PROJECTS

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Wet processing of Coir

- Techno-economic manual

CFC/FAO

- Fibre extraction

- retting
 - green decortication
 - enzyme retting

- Drying

- Bleaching

- Dyeing

- Softening

- Printing

Coir fibre projects at ATO

- Building and packaging materials
 - CFC / FAO-IGG
 - PCA and FIDA, Philippines
- Bleaching and dyeing
 - Dutch Min. Econ. Affairs
 - TRIADE bv
 - Coir Board India and CCRI
- Geotextile applications
 - HORMAN bv
- Horticultural applications
 - ENKEV, Biomundo

Coir fibre projects at ATO

- Coir based building and packaging materials
 - whole husk processing
 - fibre opening
 - milling
 - steam explosion
 - extrusion
 - hot pressing
 - materials testing
 - techno-economic evaluation

Coir fibre projects at ATO

- Coir bleaching and dyeing
 - chlorine free bleaching recipes
 - * hydrogen peroxide
 - environmental safe dyeing processes
 - brilliant colour shades
 - * light & wash fastness
 - * cheap
 - effluent recovery systems

Coir fibre projects at ATO

- Coir geotextile applications
 - ecologically safe
 - enhanced durability
 - good results in field trials
 - large applicability
 - serious interest by users
 - commercialisation stage

Coir fibre projects at ATO

- Coir horticultural applications
 - plant pots and substrate mats
 - * new durable and ecologically safe binders
 - * fully biodegradable
 - pith growing medium
 - * mineral (salt) content
 - * microbial contamination

Wet processing of Coir



- Retting of coconut husks in backwaters of Kerala, India

Wet processing of Coir



- Coir yarn dyeing in a modern dyehouse

Wet processing of Coir



- Sun drying of dyed coir yarn

Wet processing of Coir



- Stencilling of coir mats

Wet processing of Coir



- Woven Coir carpets of various patterns

Wet processing of Coir



- Stencilled coir mats of various design.

Wet processing of Coir



- Coir yarn dyeing in a modern dyehouse

Wet processing of Coir



- Traditional coir dyeing in wood heated tubs.

Processing of Coir



- Hand spinning of coir yarn

Wet processing of Coir



- Cold peroxide bleaching of coir

Wet processing of Coir



- Effluent treatment in a modern dyehouse

Wet processing of Coir



- Coir husks at decortication plant

Wet processing of Coir



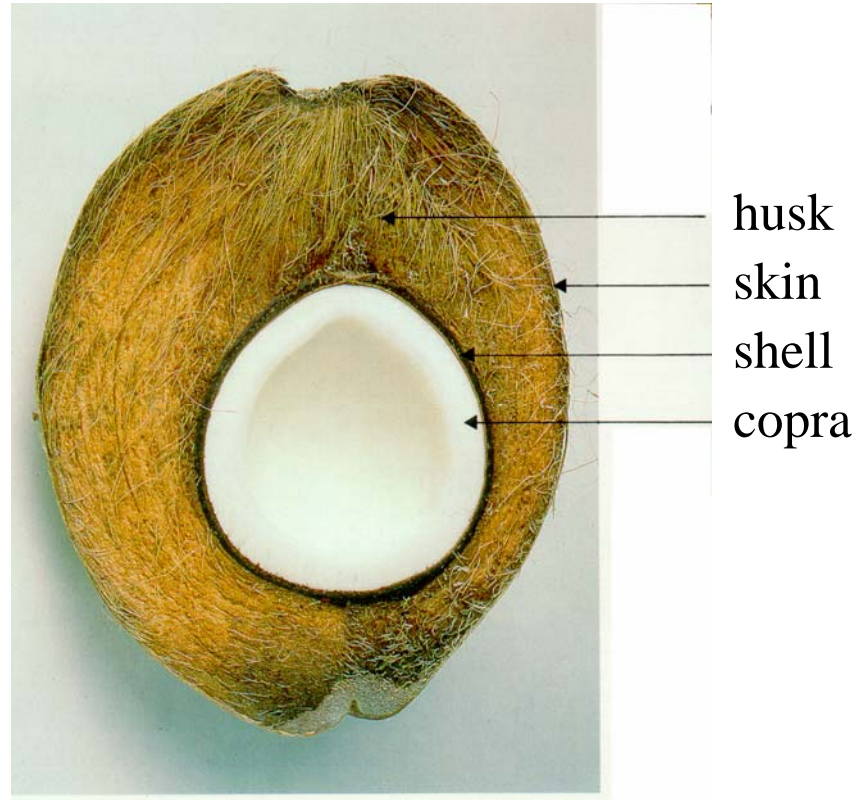
- Prototype coir dryer

Wet processing of Coir



- Hot bleaching coir yarn

Coir fibre



- Cross section of coconut

Wet processing of Coir

- Drying technology
 - cheap and effective
 - 2 tons / hr
 - reducing moisture content from 50% to 15%
- Hot air drying
 - fluid bed
 - spouted, pneumatic or vibrated bed drying
- Energy generation