

Coconut Oil - Project Profile

Introduction

Coconut palms are grown widely in the coastal tracts of the country. Copra, the dried kernel is the chief commercial product from coconut, which is mainly used for oil extraction. Copra normally has an oil content varying from 65 to 72 per cent.

Coconut oil is an important cooking medium in Southern parts of the country especially in Kerala State. Besides, the oil has varied industrial applications. It is used in the manufacture of toilet soaps, laundry soaps, surface active agents and detergents, hair tonics, cosmetics, etc. It is used throughout the country as a hair oil as it helps growth of the hair. As a massage oil it has a cooling effect on the body. Owing to these qualities coconut oil has a potential market in the country. Since the price of coconut oil in the international market is very much lower than the domestic price, the quality and attractiveness of consumer packs are important factors to compete in the world market. While the demand for coconut oil for cooking purpose is elastic, its demand as hair oil is inelastic.

For the extraction of oil from copra the common method still prevailing in our country is by using rotary chucks. But the efficient system of extraction of oil is by the use of expellers.

Process

Well dried copra with a moisture content not exceeding 6 per cent is cleaned well from any foreign matter. It is then cut into small chips in a copra cutter. The chips are fed into steam jacketed kettles and cooked mildly at a temperature of 70°C for 30 minutes. After proper cooking, the cooked material is fed into the expeller continuously and pressed twice. The combined oil from the first and the second pressing is collected in a tank provided separately. This oil is filtered by means of a filter press and stored in MS tanks. Bulk packaging is done in tin containers. HDPE containers and polymeric nylon barrier pouches are used for small consumer packings. The quality of copra is related to the quality of coconut oil.

The oil cake obtained as a by-product will find a ready market as a cattle feed and in the manufacture of mixed cattle feeds or as a raw material for the extraction of remaining oil by solvent extraction method.

Product Specification

(IS-542-1968)	
Moisture % wt., Max.	0.25
Colour in 1/4 cell Lovibond Y+5R, not Deeper than	4
Acid value, Max.	2.0
Unsap. matter % by wt., Max.	0.8
Polenske Value, Min.	0.8

Project Cost

(3 tonnes / day capacity)	
Land (cost variable)	50 cents
Building - 3500 sq.ft. @ Rs.1000 per sq.ft.	Rs.35 lakhs
Plant and Machinery (does not include DG set, weigh bridge and other items not directly connected with process operation)	Rs.35lakhs
Electrification	Rs.3 lakhs
Preliminary and preoperative expenses	Rs.2 lakhs
Working capital (Margin Money)	Rs.12 lakhs

Machinery

- Copra Cutter
- Bucket elevator
- Steam jacketed kettle
- Oil expeller
- Screw conveyor
- Crude coconut oil storage tanks
- Filter press
- Micro filter
- Filtered oil storage tanks
- Volumetric filling machine
- Baby boiler
- Wooden storage drums

Yield

Raw material	5 tonnes of copra
Coconut oil	3 tonnes

Salient Features

Sales turnover	Rs.315 lakhs
Net profit	Rs.12 lakhs
Return on investment	28 per cent

Coconut Oil Machinery Manufacturers

S. P. Engg. Corporation, Easalganj, Kanpur, U. P.	Address: 123/393, Factory Area,, Fazalganj, Shastri Nagar, Kanpur, Uttar Pradesh 280012 Phone: 093362 11360
Ganesh Expeller Works, 32-37D Naroji Road, Fort, Bombay-1.	
Perfect Machine Traders, Kurupam Road, Trichur-680 001	Kalliyath Royal Square, Place Road. Thrissur - 680 020 Kerala, India
Equipment Agencies, Kallai Road, Calicut.	Equipment Agencies #38 D, Kallai Road, Kerala Phone: 0495 - 0495-2303311
Kumar Metal Industries,101, Kakkad Bhavan, 30th Road, Bandra (West), Bombay-50	Address: 101, Kakad Bhavan, 30th Road, Opposite Gaiety Galaxy Cinema, Bandra West, Mumbai, Maharashtra 400050 Phone:022 2845 9100
ANPHARMA EQUIPMENTS	480 2723887 / 480 3291249 Email: anpharma_equipments@yahoo.com
Imperial Trade Links, Angamaly Contact Person:- Mr. George V. Irimpan (Proprietor)	Fax- 91-484-2458299 Mobile:- +919349260945
Sharplex Filters (India) Pvt Ltd (An ISO 9001:2000 Company) Filtration	Edible Oil Filtration / Process Filtration Equipments www.sharplex.com
Volvier Automations	Website: www.volvier.in volvier9@gmail.com / sales@volvier.in
Essar Technics, Aluva	0484 4033166, 9746475576
St. Antony'S Kera Products, Tony George, Ainikkal House, Kallur P.O. Trichur, , Thrissur, Kerala -680317	919995481734, 0480-2753969 Website: https://www.tradeindia.com/Seller-2804741-St-Antony-s-Kera-Products/
Lakshmi Engineering Works, Development Area, Aroor- 688 534	Ph: 04843258914, 9447014233
Ananth Dryers, Industrial Development Plot, Peringadoor, Athani, Trichur Dt	0487 2204172
Essar Engineers 519/1A, Athipalayam Road, Chinnavedampatti PO, Coimbatore-641006, Tamil Nadu, India	Mob: +91 98430 99054, 99652 99054 Email: info@essarengineers.com Website: www.essarengineer.com