

**CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
MYSORE – 570 020**

**PRODUCTION OF COFFEE CONCENTRATE
(Process Code – CBP 310)**

INTRODUCTION

Coffee is a universal and a widely popular beverage. Mostly the final brew is prepared at home. In Indian homes coffee brew is prepared using a filter device. Over the years, a dimension of convenience in the preparation of coffee was introduced with the advent of soluble coffee or what is commonly referred to as instant coffee. Even though the fresh flavour is somewhat missing in most soluble coffee or instant coffee, the convenience factor has weighed in favour of the instant coffee. The development of technology for making a coffee brew concentrate in liquid form which can be marketed in bottle form is intended to provide the convenience to the coffee consumers. This can find use in cold coffee as well as in flavouring of other food products with coffee flavour.

INSTALLED CAPACITY

The estimated installed capacity of the unit, when in full operation would be 70 litres of coffee concentrate per day. The unit can work 300 days in a year.

Installed capacity	:	70 litres per shift/day
Optimum capacity utilization	:	70%

AVAILABILITY OF RAW MATERIAL – Sources

There are two main species of coffee, namely, Arabica and Robusta, Arabica is very rich in flavour and Robusta has less flavour and yields higher extractives. India produces coffee seeds in quite substantial quantity. Availability of raw material does not find any problem especially in the Southern part of India where it is richly grown.

TECHNOLOGY/MANUFACTURING PROCESS – Availability

As coffee has become a popular and widely accepted universal beverage, CFTRI Mysore, after continued research has developed the process for manufacturing coffee concentrate

The coffee quality is dependent on the raw material and hence selection of the coffee beans/blend is the first important step. The raw coffee beans are roasted and ground to a coarse powder. The powder is wetted suitably and extracted in a jacketed percolator using hot water. The coffee brew is collected and stored in glass bottles under carbon dioxide atmosphere. Concentrated coffee brew is packed in glass bottles with crown corks. The product can be stored at room temperature for a year avoiding sunlight.

PLANT AND EQUIPMENT

Principal equipments: Coffee roaster, grinder, demineraliser, boiler, extractor, bottling equipments and carbonator.

PROJECT COST – FIXED COST – WORKING CAPITAL (in Rs. '000)

a) Land & land development (600 m ²)	60.00
b) Building & civil construction (150 m ²)	375.00
c) Plant and machinery	650.00
d) Misc. fixed assets	200.00
e) Pre-operative expenses	115.00
Total fixed capital	1400.00
Working capital margin	140.00
Total Project cost	1540.00

Means of Finance

- Promoters contribution	490
- Term loan	1050

ANY OTHER SPECIAL FEATURE

About 60% of spent coffee on the weight of green beans is available as a by-product during the manufacture of coffee concentrate. This spent coffee contains about 10% of oil, which can find use in soap industry.