Central Food Technological Research Institute Mysore – 570 020

Chlorogenic Acid Rich Coffee Conserve From Green Coffee Beans

1. Introduction:

It is well known that, coffee is a good source of phenolic compounds, which are known antioxidants, anti-tumor agents also posses a host of other therapeutic properties. The phenolic acids present in coffee such as chlorogenic acid caffeic acid, para-coumaric acid and eugenol have been shown to exert cancer preventive activities in animal models. Chlorogenic acid, which is the main phenolic acid in coffee, is able to protect the gastric mucosa against irritation and therefore, improves the digestibility of foods, beverages and medicaments. The improved digestibility is expressed through a musch reduced systemic acid secretion, which has been found to be directly dependent on an increased level of chlorogenic acid content. Also chlorogenic acid has a chemo preventive effect on rat stomach cancer.

2. Raw material and packaging materials

Good quality, latest harvest crop of coffee seeds, without infestation. This product shall be packed in clean containers made up of materials which does not affect the product and protects if from damage or spoilage.

3. Plant and Machinery:

Principal equipments: Percolator, Flaking machine, De-solventizer, Grinding machine, Solvent extractor, Autoclave, Cross flow dryer, Steam generator, Flour cleaning device etc.

Auxiliary equipments: Balances, Refractometer, Vessels etc.

4. Process in brief:

÷	ree ∎ coffee b eans ►	Softene	ed-coffee beans flakes	→ green co ffee →
flakes		Size reduction	n grits powder	Extraction
Miscella	Desolvent	ization	Conserve	

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

a)	Land & Land development (1000 m ²)	250.00
b)	Building and civil works (250 m ²)	625.00
c)	Plant and machinery	5179.00
d)	Auxiliary Equipments	170.00
e)	Miscellaneous fixed assets	50.00
f)	Pre-operative expenses	508.00
	Total Fixed Capital	6782.00

Working capital margin Total Project cost	1228.00 8010.00
Means of Finance - Promoter's contribution - Term loan	3304.50 4705.50

4. Production Capacity-(estimate)

Suggested economic capacity:	100 kg coffee conserve
Working:	1 shift/day
	300 working day/ annum

5. Technology / Manufacturing Process - Availability

The technology for processing of Chlorogenic acid rich coffee conserve from green

coffee beans 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.