

CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE, MYSORE

GARLIC POWDER

[Process code : CPS-1570]

INTRODUCTION

Garlic is mainly used as a condiment in various food preparations and it also serves as a carminative and gastric stimulant in many medicinal preparation. As a condiment, it is used for flavoring mayonnaise and tomato ketchup-sauce, salad dressings, meat sausages, stews, spaghetti chutney, pickles, etc. It aids in digestion and absorption of food, possesses anti-helminthes and antibacterial properties and because of these special properties, it is used in a number of medicinal preparations also. Manufacture of garlic powder from raw garlic bulbs is a wee established industry in USA and Europe: its uses in these countries are well established.

In India, though garlic is grown abundantly and consumed as such, little efforts have so far been made to produce dehydrated garlic and garlic powder with the result that nearly 20% of the crop is wasted due to respiration, microbial spoilage during storage of raw garlic bulbs. India exports considerable quantity of garlic bulbs and garlic and garlic powder mostly to Bahrain, Kuwait, Muscat, Seychelles, USA, Yemen Arab Republic and some European countries.

RAW MATERIAL

Garlic is grown in several states in India. State wise area and production figures for 1998-99 are as follows:

	<i>State</i>	<i>Area (ha)</i>	<i>Production (tonnes)</i>
a.	Andhra Pradesh	736	854
b.	Bihar	3229	5216
c.	Gujarat	15900	76000
d.	Haryana	1500	23800
e.	Jammu and Kashmir	204	137
f.	Karnataka	3657	3032
g.	Madhya Pradesh	24027	82182
h.	Maharashtra	14050	42760
i.	Punjab	778	8012
j.	Rajasthan	6409	8943
k.	Tamilnadu	728	4425
l.	Uttar Pradesh	5462	23164

PLANT AND MACHINERY

Principle equipments: Pre-conditioning equipment, Drier, Husk remover, Air classifier, Powdering unit, Flaker.

PROJECT COST – FIXED COST – WORKING CAPITAL (in Rs. ‘000)
(estimate for a model project)

a)	Land & land development(1000 m ²)	100.00
b)	Building and civil works (200 m ²)	500.00
c)	Plant and machinery	950.00
d)	Miscellaneous fixed assets	150.00
e)	Pre-operative expenses	100.00
	Total fixed capital	1800.00
	Working capital margin	175.00
	Total Project cost	1975.00
	Total working capital required at 9.5% of turnover	700.00

Means of Finance

- Promoters contribution	625.00
- Term loan	1350.00

PRODUCTION CAPACITY-(estimate)

Suggested economic capacity : 200 kg/day

Working : 1 shift/day, 300 working days/annum

Capacity : 60 tonnes/annum

Optimum capacity utilization : 70%

TECHNOLOGY/MANUFACTURING PROCESS – Availability

The technology for processing of raw garlic into garlic powder/flake has been developed at CFTRI, Mysore using appropriate equipment for optimal product recovery of right quality. The CFTRI has the necessary expertise to provide technical assistance and guidance for the project. The CFTRI can offer further technical assistance for project implementation under technical consultancy arrangements.