

CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE, MYSORE

PROCESS KNOW-HOW ON PULSE BASED PAPADS

INTRODUCTION

Papad is a thin wafer-like snack food particularly popular in South and South-East Asian countries. It is made from dough containing legume flour along with salt, khar and spices. It is either toasted or deep fat fried to an attractive crispy wafer like product that is commonly used as an adjunct to a full meal.

MARKET

Currently papad production and sale are carried out at home level or as a tiny scale industry, which is mostly in the unorganized sector. Even large producers of popular brands of papads such as “Lijjat” or “Amani” are also basically home industries. As practiced currently these are mostly manually operated units, which have minimal capital investment. The working capital needs are met by daily sales of late papad manufacturers, aiming at export markets, are in need of the semi or fully automatic plants and hence are on the look out for such developments.

Demand for papad is seasonal in nature. It peaks during Diwali and in the marriage season and at that time large number of players spring up. The total market is about four tonnes per day.

MATERIALS AND PROCESS

Raw material: Black gram dhal flour, salt, Sodium bicarbonate, Water-potable, crushed cumin seed and black pepper, asafetida, Ca-propionate.

PROCESS: The process involves the following steps:

- Grinding of black gram
- Mixing
- Kneading of the dough
- Shaping
- Drying at room temperature

PLANTS AND MACHINERY

Principal equipments: Plate Grinder, Sieve shaker, Low-pressure boiler, steam-jacketed kettle with stirrer, motorized mixing, forming and kneading machine, hand operated papad press, leg operated papad press and sealing equipment.

Auxiliary equipments: Electric stove, general heating and lighting, Electronic balance, pH meter and working tables.

**PROJECT COST - FIXED COST - WORKING CAPITAL (in Rs. '000)
(estimate for a model project)**

a. Land (74.3 Sq.m)	14.00
b. Building (47.7 Sq.m)	167.00
c. Plant and machinery	379.00
d. Pre-operative expenses	88.00
e. Miscellaneous	10.00
Total fixed cost	658.00
Working capital margin	91.00
Total project cost	749.00

PRODUCTION CAPACITY - (Estimate)

The installed capacity 100 Kg finished product per shift/day and working for 300 days in a year.

TECHNOLOGY/ MANUFACTURING PROCESS - Availability

CFTRI has standardized the technology and general methods of processing pulse based papads. Apart from this procedure for quality control, packaging and packaging material specifications, the institute also provides equipment details.