

LOW-FAT EXPANDED SNACKS

INTRODUCTION

Snacks of various types with different taste and texture are available. The ingredients used for preparing these products also vary largely but most of them are, either cereal or pulse based or even a combination of both. Usually they are fried and hence, contain a high amount of fat (40% and above). Many families who prepare these products at home are now interested to buy these snacks as a ready-to-eat product to save time and to avoid the drudgery while making them. Industrial establishments need high output machine(s) that can produce crisp tasty product and maintain high hygienic quality standards. Further, due to health reasons, the manufacture of low-fat snacks is an attractive option. Extruders can fill this need as an important part of high output production systems.

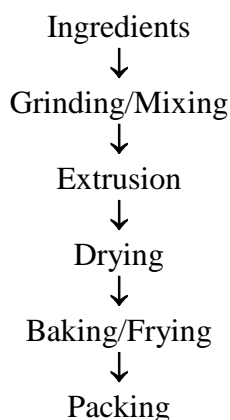
R & D AT CFTRI

The Institute is actively engaged in the use of extruders to develop breakfast cereals and snacks for Indian food industry aiming at the internal markets and for export purposes as well. This effort has led to the development of snacks with low-fat content retaining the crunchy texture and taste. The added benefits are high protein content and rich in energy (calorie). The materials used are rice flour and green gram flour. The addition of special flavours and/or coating is a simple task.

RAW MATERIAL

Green gram, Rice etc.

PROCESS



PLANT AND MACHINERY

Extruder, Drier, Grinder, De-stoner, Mixer Grader and Packaging unit etc

PROJECT COST – FIXED COST – WORKING CAPITAL (Rs. ‘000)

(Estimate for a model project)

a)	Land & Building (1000 M ²)	1000.00
b)	Plant & Machinery	10500.00
c)	Miscellaneous	150.00
	Total fixed capital	11650.00
	Working capital (for 25 days)	370.00
	Total project cost	12020.00

PRODUCTION CAPACITY- (estimate)

Working : 1 shifts/day; 300 working days/annum
 Installed capacity : 1 Ton /shift/day

THE PROFIT

The cost of production of the extruded snack is about Rs.60/kg whereas similar products are sold at a price of Rs.120- 300 per Kg. The product can be easily sold in the Indian market and for export purposes. Furthermore, it can be used for school feeding programmes.

OTHER APPLICATIONS OF EXTRUSION TECHNOLOGY

The same extruder can also be used to manufacture vegetable meat from soybean and breakfast cereals including corn/wheat/rice flakes.