

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

HIGH PROTEIN BISCUITS

Introduction

Biscuits are amongst the lowest cost processed foods in the country when compared to Indian sweet meats, salted snacks like wafers and savoury items such as Bhujia, Chevda etc. Among all snack items, biscuits have certain advantages, as it is easy to sue during travel or at home because of its availability, in variety of pack sizes suiting to individual tastes. Biscuit apart from offering good taste it is a snack item with substantial energy having wholesome and nutritious quality at affordable prices. Further, biscuits have in general a good shelf-life which is higher than all other snack items mentioned above.

Uses

The High protein biscuits will be useful to come back the malnutrition prevalent and the production of the biscuits can be adopted by the existing units. The biscuits can be used in the nutrition supplement programmes of State/Central Governments.

Marketing

There is a great potential for biscuits in India in view of several advantages it offers. The estimated growth rate though 10%, it could be more, provided more number of varieties are produced and marketed and also quality is maintained. This is more so on at present only few varieties are produced in India as compared to other countries. Some of the newer varieties that can be thought of are biscuits with different flavours as India is a country rich in spices. Some of the spice/flavours in biscuits or cream included are cardamom, jowar, cumin, pepper, ginger etc. At present very few efforts are made to use biscuits as vehicle of Nutrition to either common man or to targeted groups like malnourished children, lactating mother or pregnant women, geriatrics etc. The other way of producing varieties is health/therapeutic products like sugar free, high fiber, low calories etc. There are also number of varieties of now produced with different texture like soft centered and extruded products.

Raw material

Wheat flour, Soya protein concentrate, Sugar, Fat, Salt, Skimmed milk powder & Vitamins etc

PROCESS

High protein biscuits are made from soft dough based on creaming method and processed in rotary moulder. The biscuits are baked in the continuous tunnel type oven as followed for sweet soft dough type biscuits.

PLANT & MACHINERY

Major equipments required are Flour sifter, Mixer, Moulding machine, Stripper unit, Baking oven, Cooling conveyor, Packaging machine, Sugar grinder etc.

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

a)	Land & Land development (10000 m ²)	1500.00
b)	Building and civil works (2000 m ²)	6500.00
c)	Plant and machinery	29100.00
d)	Miscellaneous fixed assets	4000.00
e)	Pre-operative expenses	1000.00
	Total fixed capital	42100.00
	Working capital margin	17200.00
	Total Project cost	59300.00

Means of finance

- Promoters contribution	27725.00
- Term loan	31575.00

PRODUCTION CAPACITY- (estimate)

Suggested economic capacity:	60 MT / day
Working	: 300 working days/ year
Capacity	: 18000 MT /annum
Optimum utilization capacity:	70%

TECHNOLOGY/MANUFACTURING PROCESS – Availability

The technology for the manufacture of High protein biscuits 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 setting up the project. The CFTRI can offer further technical assistance for project implementation under technical consultancy arrangements.