

**CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE, MYSORE**  
**Corn-Soy High-Protein Spicy Snack Or Extruded Low-Fat Snack**

## **INTRODUCTION**

The product Nutrocrispo-Spicy is a cost-effective high-protein nutritious and tasty food for, particularly for school children in the age group of 6-12 years. Keeping in view of the requirements of a growing child, the product Nutrocrispo-Spicy has been developed as a ready-to-eat crispy snack having salty-spicy taste. This supplies a minimum of 15-gram protein and about 400 kcal energy per 100-gram product.

This product has been developed employing extrusion technology that has already established itself to be a commercially successful technology to develop snacks and breakfast foods throughout the world. The advantages of employing extrusion technology lie in requirement of less space, energy and manpower while manufacturing in a hygienic way. The developed product is not only nutritionally excellent but also possess and attractive crisp texture with a mild salt-cum-spicy taste. Though this product has been made especially for children and for nutritional intervention program, it can also be marketed as a protein-rich snack or as a health food. In addition, it is also suitable as a low-fat snack in place of traditional fried snacks that content very high level of fat.

To make processing economic and industrially suitable, commonly available cost-effective raw materials have selected; the main ingredients are corn and soybean flour.

- i) Product has a self-life of 3 months under normal storage condition
- ii) The product is microbiologically safe
- iii) Product is also free from any type of rancid flavour.

## **RAW MATERIAL**

Corn, Soya flour and Salt.

## **PLANT AND MACHINERY**

List of equipments

**Principal equipments:** Mixing unit for powdery material, Extruder cooker with facility for, Dryers, Coating unit/flavour applicator/mixer, Conveying systems for, Size grader (2 units), Packaging unit (2 units).

**Auxiliary equipment:** Preparation tables, Trolleys, weighing machine, Holding vessels and miscellaneous items.

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|-----------------------------|--------------------|
| a) Land & Land development  | 600 m <sup>2</sup> |
| b) Building and civil works | 200 m <sup>2</sup> |
| c) Plant and machinery      | Rs. 33,00,000      |

## **PRODUCTION CAPACITY - (estimate)**

Suggested economic capacity: 1000Kg /day  
Working : 2 shifts/ day, 300 working days/ year  
Capacity : 300 tones/ annum

Optimum utilization capacity: 70%

## **TECHNOLOGY/MANUFACTURING PROCESS – Availability**

The technology for the manufacture of Corn-soya high-protein spicy snack 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.