Puffed Moth Bean Sweet & Savoury Snacks

1. Introduction:

The moth bean puff snack is a ready-to-eat (RTE) product with either sweet or salt-spicy in taste. It is suitable as a low-fat snack because the step of frying using oil or fat has been omitted to provide a good shelf-life to the product without sacrificing the attractive taste and texture of eating a crispy snack. The product is cost effective and may also be considered as a health food. The product can be stored for 4 months at ambient conditions. As moth bean is an underutilized pulse, the use of the same to develop a product can be considered as a value added benefit of increased protein content.

2. Use:

The small size moth bean fractions/ broken can be used separately in the preparation of sweet & coated products in a similar manner.

3. Raw material:

Whole moth bean, pre-gelatinized starch powder, sugar, salt, hydrogenated (permitted to be used in food)

For sweet snack: Permitted food colour and flavour

For spiced snack: Chilli powder, Garlic powder, Puffed Bengal gram, Permitted food colour

4. Process in brief:

Whole moth bean ➔ Cleaning & Milling ➔ Soaking ➔ Cooking ➔ Toasting ➔ Coating or flavouring ➔ Drying ➔ Packing

5. Plant and Machinery:

Principal equipments: Plant grinder, Shaker/ grader, Autoclave, Planetary mixer, Dryer, Toaster, Pan coater

Auxiliary equipments: Heat sealer, Weighing scales, Working tables, Electric stoves Soaking tank etc.
5. **Project Cost – Fixed Cost – Working Capital (Rs. ‘000):**
   (Estimate for a model project)

   **For spiced snack**
   a) Land & Land development (372 m²) 74.00  
   b) Building and civil works (378 m²) 590.00  
   c) Plant and machinery 1728.00  
   d) Pre-operative expenses 2650.00  
   **Total Fixed Capital** 5042.00  
   Working capital margin 481.00  
   **Total Project cost** 5523.00  

   **Means of Finance**
   - Promoter's contribution 3729.00  
   - Term loan 1794.00  

   **For sweet snack**
   a) Land & Land development (372 m²) 74.00  
   b) Building and civil works (274 m²) 590.00  
   c) Plant and machinery 1728.00  
   d) Pre-operative expenses 2650.00  
   **Total Fixed Capital** 5042.00  
   Working capital margin 520.00  
   **Total Project cost** 5564.00  

   **Means of Finance**
   - Promoter's contribution 3770.00  
   - Term loan 1794.00  

6. **Production Capacity-(estimate):**

   Suggested economic capacity: 500 kg finished product/day/shift  
   Working: 300 working day/annum  

7. **Technology / Manufacturing Process -Availability:**

   The technology for processing of the **Puffed Moth Bean Sweet & Savoury Snacks** has been developed at CFTRI, Mysore using appropriate equipment optimal product recovery of right quality. The institute has the necessary expertise to provide technical assistance and guidance for setting up the project and implementation, under technical consultancy arrangements.