# 3. Nutritious Supplementary Foods from Edible Food Wastes

# Preamble:

The project entitled "Development of Nutritious Supplementary Foods from Edible Food Waste to Improve Food and Nutrient Security" was financially supported by Rajiv Gandhi Science and Technology Commission (RGSTC), Govt. of Maharashtra. Technology development was successfully carried out by Dr. Asha Arya, Associate Prof of Foods and Nutrition, College of Home Science, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani,Maharashtra.

The nutrient security is an important issue in our country. Utilization of edible discards to increase the nutritional value of food products proved to be successful. It can help to increase the nutrient security of common man apart from extending an opportunity to the farmers to fetch income even from vegetable discards. The technology developed to use the edible discards with special reference to cauliflower and drumstick leaves for value addition is ready and can be used by both small and medium scale food industries.

# **Objectives:**

- 1. To develop protein and iron rich products by utilizing selected edible food waste.
- 2. To develop products utilizing cauliflower and drumstick leaves and deoiled soya meal.
- 3. To standardize the developed products for consumer acceptability.
- 4. To evaluate the nutritional composition and quality of developed products.
- 5. To scale up the products to industrial levels.

# **Unique Features of the Products:**

- Products rich in protein, iron, calcium and β carotene.
- Protein digestibility is > 82 %.
- No preservatives, no food colours.
- Suitable for all age groups.

# **ProductSpecifications:**

- The products developed under this project are safe for consumption.
- The methods used for the preparation are Simple cooking, Baking & Extrusion.
- Raw material required for products is available locally.

# Nutritional value of the products

Nutrients	Chunks	Mastbytes	Meltyz	Nutri snacks	Calpops	Lohpops	Protipuff	Nutri- crunch
Protein (g)	20.0	21.00	18.00	23.00	12.00	12.00	18.0	15
Fat (g)	7.0	16.0	28.0	2.0	2.0	3.0	2.0	2
Energy (kcal)	364	441	503	386	380	383	403	384
Iron (mg)	14	9	6.0	12.0	3.0	9.0	6.0	2.0
Calcium (mg)	660	102	91.0	139	194	172	66	51
Carbohydr ates (g)	54	54.00	45	68.00	77	75	77	75
β Carotene (µg)	1732	168	215	34	1401	346	39	60

#### **EQUIPMENT REQUIRED FOR THE DEVELOPMENT OF THE PRODUCT:**

Cabinet dryer, Small flour mill, Baking oven, Extruder (Hot), Regular kitchen utensils, Mixer/grinder, Refrigerator, Rotatory mixers, LPG Gas connections, Packaging unit, Weighing balances, Storage cupboards, *Shevaya* Machine (depending on the products to be processed) etc.

# FOR DETAILS, CONTACT:

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# Sample Products developed under the project







Mastbytes



Meltyz



Nutrisnacks (Khir)



Nutrisnacks (Raw)



Calpops



Lohpops



Protipuff



Nutricrunch