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# Development of Millet Dip Stick (Samai, Thinai, Kambu) and Analyse the Sensory Acceptability

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## Abstract

*Nutrient loss occurs in the body when there is Protein-Energy Malnutrition (PEM). For children in underdeveloped countries, it is the leading cause of death. Protein-calorie malnutrition, or PEM, is another term for it. It manifests in children whose dietary intake of energy and protein is inadequate to meet their needs. Millets are considered a healthy food for developing kids and an excellent weaning food for babies. It's high in protein. Hence, it supports children's muscular development and growth. It has little simple sugars, a lot of fiber, and few carbohydrates. As a result, it has a lower glycemic index than wheat or rice and results in lower blood sugar levels. A biscuit is a flour-based and shaped food product. The biscuits are great for quelling children's sudden hunger sensations and can even be eaten by adults. Concerned about their child's protein consumption, many parents search for nutritional supplements. To fulfil the nutritional requirements, millet biscuits are ideal. Iron is abundant in moringa leaves. Millet biscuits are the best option to provide the necessary nutritional intake. Moringa leaves are rich in iron. For this project, we created a dip using powdered moringa leaves and biscuits made with little, foxtail, and pearl millet. It is a healthy treat that is perfect for children.*

**Keywords:** Protein-Energy Malnutrition, Millets, Weaning Food, Foxtail, Pearl, Little Millet.

## Introduction

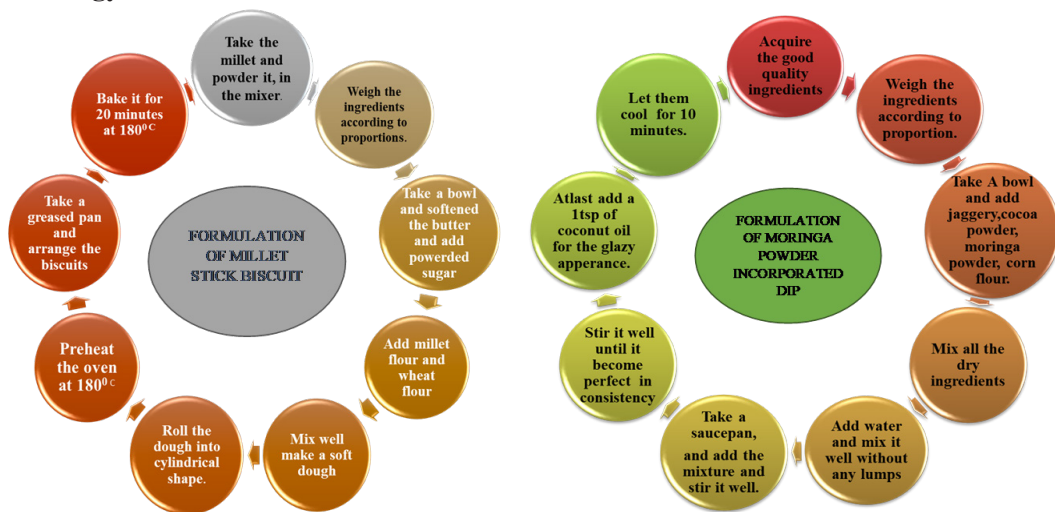
Millets are regarded as a healthy food for developing children and as an excellent weaning food for babies. It has a lot of protein. Therefore, it aids in children's muscular development and growth. It has little simple sugars, a lot of fiber, and little carbs. As a result, compared to wheat or rice, it has a comparatively small glycemic index and lower blood sugar levels. The biscuit is a formed food item made of flour. The biscuits can even be eaten by adults and are perfect for children experiencing unexpected hunger pangs. Concerned about their child's protein consumption, many parents hunt for nutritious supplements. The ideal snack to satisfy dietary requirements is millet biscuits. Iron is

abundant in moringa leaves. For this project, we made biscuits with Little Millet, Foxtail Millet, Pearl Millet, and a dip that included powdered moringa. It is a wholesome snack, particularly for kids.

### Objectives

- To create the dip stick made of millet.
- To evaluate the millet dip stick’s sensory acceptability.
- To investigate the millet dip stick’s shelf life after formulation.
- To evaluate the millet dip stick formulation’s cost ratio.

### Methodology



#### Preparation of Millet Biscuit

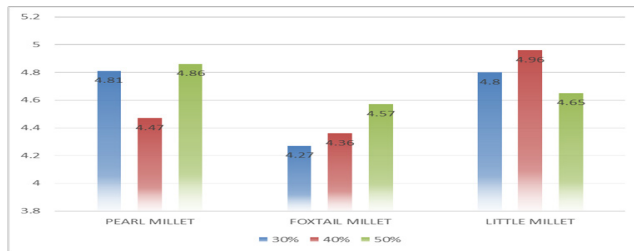
S.NO	INGREDIENTS	AMOUNT IN GRAMS		
		F30%	F40%	F50%
1	MILLET	30	40	50
2	WHEAT FLOUR	30	20	15
3	BUTTER	15	15	15
4	SUGAR	25	25	25

#### Preparation of Moringa Dip

S.NO	INGREDIENTS	AMOUNT IN GRAMS
1	COCOA POWDER	15
2	JAGGERY	75
3	MORINGA POWDER	5
4	WATER	100
5	CORN FLOUR	5

### Result

The maximum rating of 4.86 (50%), 4.57 (50%) and 4.96 (40%), respectively, for the overall acceptance of Pearl Millet, Foxtail, & Little Millet dip sticks.



### Cost Analysis

- The cost for the preparation of pearl millet stick biscuit with 100 grams of ingredients is 23 rupees and miscellaneous cost is 5 rupees. Hence the total cost is Rs.28.
- With 100 grams of materials, foxtail millet stick biscuits cost 27 rupees to prepare, plus an additional 5 rupees for other costs. Thus, the entire expense comes to 32.
- A hundred grams of components cost 29 rupees to prepare one small millet stick biscuit, plus an additional 5 rupees for other costs. Thus, Rs. 34 is the total expense.
- With one hundred grams of components, making moringa dip costs 39 rupees, plus an additional 5 rupees for extraneous costs. Therefore, the entire expense comes to Rs. 44.

### Shelf-Life Analysis

The produced MILLET DIP STICK’s shelf-life analysis reveals that after 60 days, the product does not significantly alter. It can therefore be kept and used for up to two months.

### Conclusion

Biscuits made with 50 percent Pearl Millet, 50 percent Foxtail Millet, and 40 percent Little Millet are well-liked. According to the study, children’s diets could benefit from including more protein and energy-boosting millet dip sticks. The developed goods were well regarded.

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