



## Formulation and Standardization of Magic Broth

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### Abstract

A seed is a fully grown ovule that contains an embryo, or a tiny, immature plant, as well as food stores, all covered in a seed coat for protection. The bulk of human calories originate from seeds, particularly those found in cereals, legumes, and nuts. Many seeds are edible. The endosperm, or seed embryo, predominates and supplies the majority of the nutrition in many seeds. The pods of the drumstick tree, also known as the Moringa plant (*Moringa Oleifera*), which is endemic to Northern India, are used to make moringa seeds. Rich in vitamins, calcium, iron, and vital amino acids, moringa is a nutrient-dense plant. Numerous vital nutrients, including lignans, omega-3 fatty acids, dietary fiber, vitamins, and minerals, are found in flax seed. A soluble fiber, such as  $\beta$ -glucan, gums, and pectin. Soup is favored and liked by all. Tomato powder, flax seed, sunflower seed, drumstick seed, and dry vegetables along with spices and condiments were used to make this Magic Broth. Magic Broth from Drumstick Seed was well-received during the sensory assessment. Analysis was done on the nutritional value and storage capabilities. According to an organoleptic evaluation, Drumstick seed Magic Broth received the top rating for the panelists' assessments of the sensory qualities. A nutrient-rich product that helps with blood glucose management is magic broth. Its iron, fiber, and protein contents are very high. Magic Broth is the recommended treatment for diabetes mellitus. It is a widely consumed meal that appeals to people of all ages.

**Keywords:** Magic Broth; Seeds; Drumstick

### Introduction

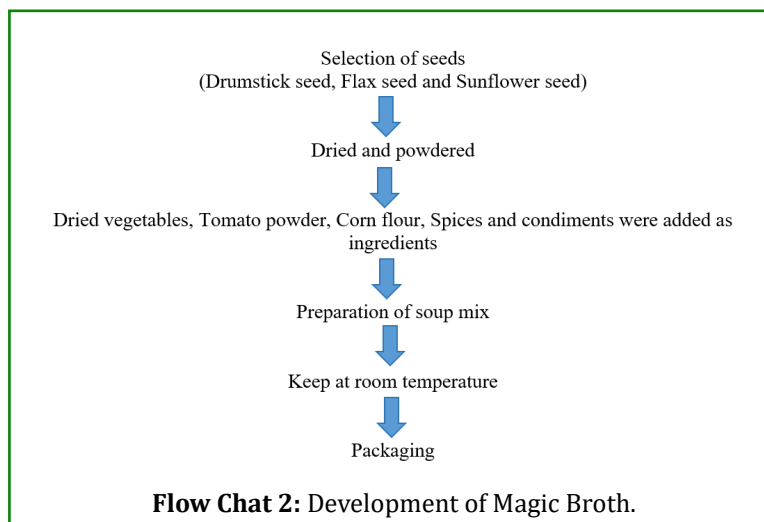
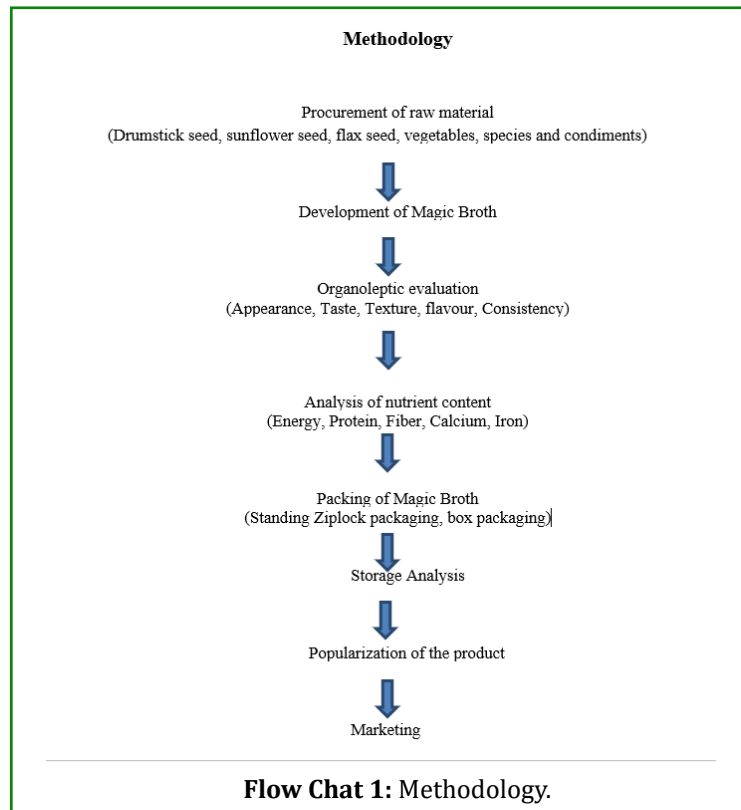
Flax, sunflower, and drumstick seeds are among the seeds that keep your body healthy and help prevent sickness. It offers several fantastic benefits, particularly for those with diabetes. It's possible that every component of the drumstick has qualities that are vital to human health [1]. Traditional medicine has made use of drumsticks. Ayurvedic medicine holds that drumsticks can be beneficial for a number of ailments because of its high nutritional content, ability to retain water, and purifying properties. In addition to being a fantastic source of zinc, moringa seeds helps control blood

sugar, which may help treat or possibly prevent diabetes [2,3]. It is a "powerhouse of antioxidants" that can lower the body's levels of oxidized lipids and protect the heart's tissues from deterioration. There are about thirty antioxidants in the oil that is derived from moringa seeds. It has vitamins A, B-complex, C, and other antioxidants that prevent serious oxidative damage to our body [4,5]. To put it another way, the antioxidants included in moringa seeds can protect our general health. Flax seed has functional components that make it good for serious illnesses like cancer, diabetes, obesity, renal, and bone disorders, as well as cardiovascular ailments [6-10]. Soluble and insoluble fibres are both present

in flax seed. Insoluble fiber provides volume to the stool, which may prevent constipation and encourage regular bowel movements, whereas soluble fiber absorbs water in your intestines and slows down digestion, which may help manage blood sugar levels and decrease cholesterol. People with elevated blood pressure may benefit most from this seed. In individuals with elevated blood pressure, it lowered it. Patients with type 2 diabetes mellitus can benefit from sunflower seeds by having decreased blood sugar levels. It's a chronic illness that causes your body to have high blood sugar because the cells don't react to insulin [11-13].

## Objectives

- To Formulate the Magic broth.
- To Study the Sensory Attributes of the Magic Broth.
- To Analyze the Nutrient Content of the Developed Product.
- To Study the Shelf Life of the Developed Product.
- To do the Cost Analysis of the Formulate Magic Broth.
- To do the Popularization of the Magic Broth (Table 1).
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Ingredients	Drumstick seed Magic Broth	Flax seed Magic Broth	Sunflower seed Magic Broth
Drumstick seed	30g	-	-
Flax seed	-	30g	-
Sunflower seed	-	-	30g
Corn flour	10g	10g	10g
Dried vegetables	20g	20g	20g
Tomato powder	20g	20g	20g
Spices & condiments	20g	20g	20g

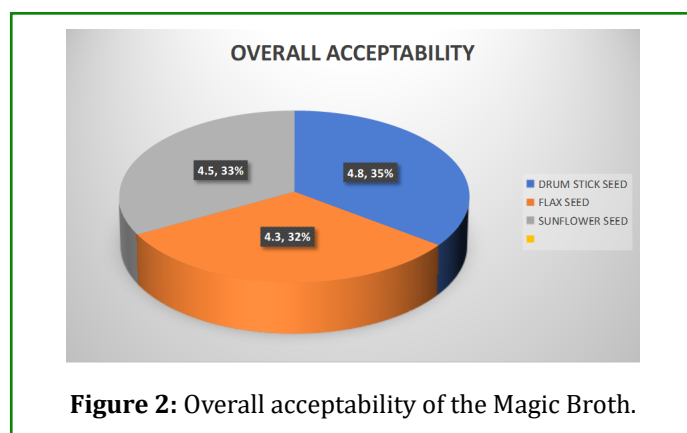
**Table 1:** Proportion of Magic Broth.



**Figure 1:** Formulation of the Magic Broth.

Drumstick seed Magic Broth, Flax seed Magic Broth, Sunflower seed Magic Broth (Figures 1 & 2).

### Result and Discussion



**Figure 2:** Overall acceptability of the Magic Broth.

### Nutrient Content of Magic Broth

Nutrient Content of magic broth were calculated. Macro nutrients like energy, protein, fiber and micro nutrient like iron and calcium (Tables 2 & 3).

S.No	Nutrient	Drumstick seed	Flax seed	Sunflower seed
1	Energy	445kcal	398.8kcal	409.44kcal
2	Protein	29.7g	15.16g	15.76g
3	Iron	3.2mg	3.6mg	3.32mg
4	Fibre	15.2g	20.88g	15.06g
5	Calcium	340mg	244.87mg	189.78mg

**Table 2:** Nutrient content of Magic Broth.

The Nutrient Content of Magic Broth was analyzed on “SPECIALIZED TESTING SERVICES LABORATORY (An ISO Certified Testing Laboratory) in Madurai”

### Storage Analysis of Magic Broth

	Days	Room Temperature	Refrigerator
Drumstick Seed	1 to 7 <sup>th</sup> day	No change	No change
	8 <sup>th</sup> and 14 <sup>th</sup> day	No change	No change
	15 <sup>th</sup> to 21 <sup>st</sup> day	No change	No change
	22 <sup>nd</sup> to 28 <sup>th</sup> day	No change	No change
	After 28 <sup>th</sup> day	Change in taste	Change in appearance
Flax Seed	1 to 7 <sup>th</sup> day	No change	No change
	8 <sup>th</sup> and 14 <sup>th</sup> day	No change	No change
	15 <sup>th</sup> to 21 <sup>st</sup> day	No change	No change
	22 <sup>nd</sup> to 28 <sup>th</sup> day	No change	No change
	After 28 <sup>th</sup> day	Change in taste	Change in appearance
Sunflower Seed	1 to 7 <sup>th</sup> day	No change	No change
	8 <sup>th</sup> and 14 <sup>th</sup> day	No change	No change
	15 <sup>th</sup> to 21 <sup>st</sup> day	No change	No change
	22 <sup>nd</sup> to 28 <sup>th</sup> day	No change	No change
	After 28 <sup>th</sup> day	Change in taste	Change in appearance

**Table 3:** Storage analysis of Magic Broth.

### Conclusion

According to the current study, magic broth is a nutrient-rich product that aids in blood glucose regulation. It has especially high protein, fiber, and iron content. This soup combination is especially beneficial for those who are obese. Reaching a large audience is easy because soup mixes are a popular food among all people and add to the enhanced fiber content of our new initiative.

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