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Preperation of Sambhar Premix

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Abstract: ***A sambhar premix is a convenient blend of dry spices and lentils essential for preparing the popular South Indian dish, sambhar. Comprising roasted and ground ingredients like lentils (toor dal, masoor dal), spices (coriander, cumin, fenugreek, mustard seeds), dried red chilies, and aromatics (turmeric, asafetida, curry leaves); this premix offers a quick solution to recreate the flavorsome and aromatic sambhar. When stored in an airtight container, this premix maintains its freshness, making it a time-saving and versatile addition to various culinary creations. masala development process would highlight the key steps and considerations in creating this traditional South Indian spice blend. It would cover aspects suchas ingredient selection, proportioning, grinding techniques, and the preservation methods employed. Additionally, the abstract might touch upon the cultural significance of masala and its role in enhancing the flavor profile of the iconic dish. This abstract delves into the historical evolution of masala, exploring its traditional ingredients and tracing the development of a premix. The document outlines the meticulous method of preparation for the premix, emphasizing key steps such as ingredient selection, proportioning, and grinding techniques.***

Additionally, it includes a comprehensive cost analysis of the production process. Proximate testing is employed to evaluate the nutritional composition of the masala, shedding light on itsdietary implications. This abstract aims to provide a holistic overview of the masala development process, combining historical context, preparation methodology, cost considerations, and nutritional insights. This detailed abstract explores the rich history, intricate ingredients, and methodical preparation of masala powder, with a focus on developing a premix. The historical analysis delves into the origins and evolution of the spice blend, highlighting the regional variations and cultural significance associated with its use in South Indian cuisine. The document provides a comprehensive overview of the ingredients, emphasizing the selection of authentic spices crucial to achieving the distinctive flavor profile. The method of preparation for the premix is detailed, encompassing precise measurements, grinding techniques, and the blending process to ensure consistency and optimal flavor infusion. A meticulous cost analysis is presented, covering raw materials, processing expenses,and packaging costs, offering insights into the economic feasibility of producing masala on a larger scale.

Furthermore, proximate testing is employed to assess the nutritional composition, detailingthe macronutrient and micronutrient content, contributing to a comprehensive understanding of the spice blend's dietary implications. This abstract aims to serve as a comprehensive reference, encapsulating the historical, culinary, economic, and nutritional dimensions of masala powder and its premix variant.

I. INTRODUCTION

A value-added ready-to-cook sambhar powder was innovatively crafted using milling residuesof pigeon pea, such as grits (broken dal). Through meticulous optimization via sensory evaluation, the recipe reached its pinnacle. Proximate analysis delved into the product's composition, while the impact of varied packaging materials on the shelf life of the sambhar powder was scrutinized.

Microbial and sensory assessments unfolded at intervals—initial, 30th, 60th, and 90th days of storage. Test results unveiled the developed powder as 'liked extremely' for taste and appearance, and 'very much liked' for texture, aroma, and overall acceptability. Notably, the powder stored in a retort pouch exhibited commendable shelf life. India, acclaimed as the spice hub, cultivates nearly all of the 70 spices recognized by the international standards organization.

Noteworthy among these are pepper, cardamom, chilies, ginger, turmeric, and various spice seeds, along with curry powder. The annual spice production totals 2 million tonnes, with spice and spice powder exports reaching around 0.5 million tonnes, while the remainder satisfies domestic consumption.

The domestic market for spice powders, including blends of various spices (masala powders), is experiencing rapid growth. A significant portion of spice powder production stems from small-scale home or cottage-level units distributed across the country, numbering approximately 1500 units. Large companies, numbering 20-25, engaged in both packed spiceproduction and exports are scarce, with only a few having achieved a national market presence.

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Coriander, chili, and turmeric powders collectively contribute 50% to the product mix in most units. India plays a substantial role in the global spice trade. powder, a widely- used spice blend, enhances the flavor of —a popular broth made with vegetables, cooked lentils, and tamarind paste. Enjoyed with cooked rice, idly, dosa, and vada, powder has gained popularity, offering diverse choices. Each state has its unique recipe, featuring variations in ingredients. Common elements in powder include toor dal, coriander seeds, cumin seeds, fenugreek, pepper, turmeric, and curry leaves. Renowned for its versatility, powder complements a variety of ingredients in culinary preparations.

II. METHODOLOGY FOR PREPERATION OF SAMBHAR PREMIX

Spices cleaning/ Grading
⇊
Drying at 55-60^{0}c for 1 hr.
⇊
Weighing
⇊
Roasting at 180^{0}c for 2-3 min
⇊
Grinding/pulverizing
⇊
Mixing/blending
⇊
Filling/sealing
⇊
Packaging and storing.

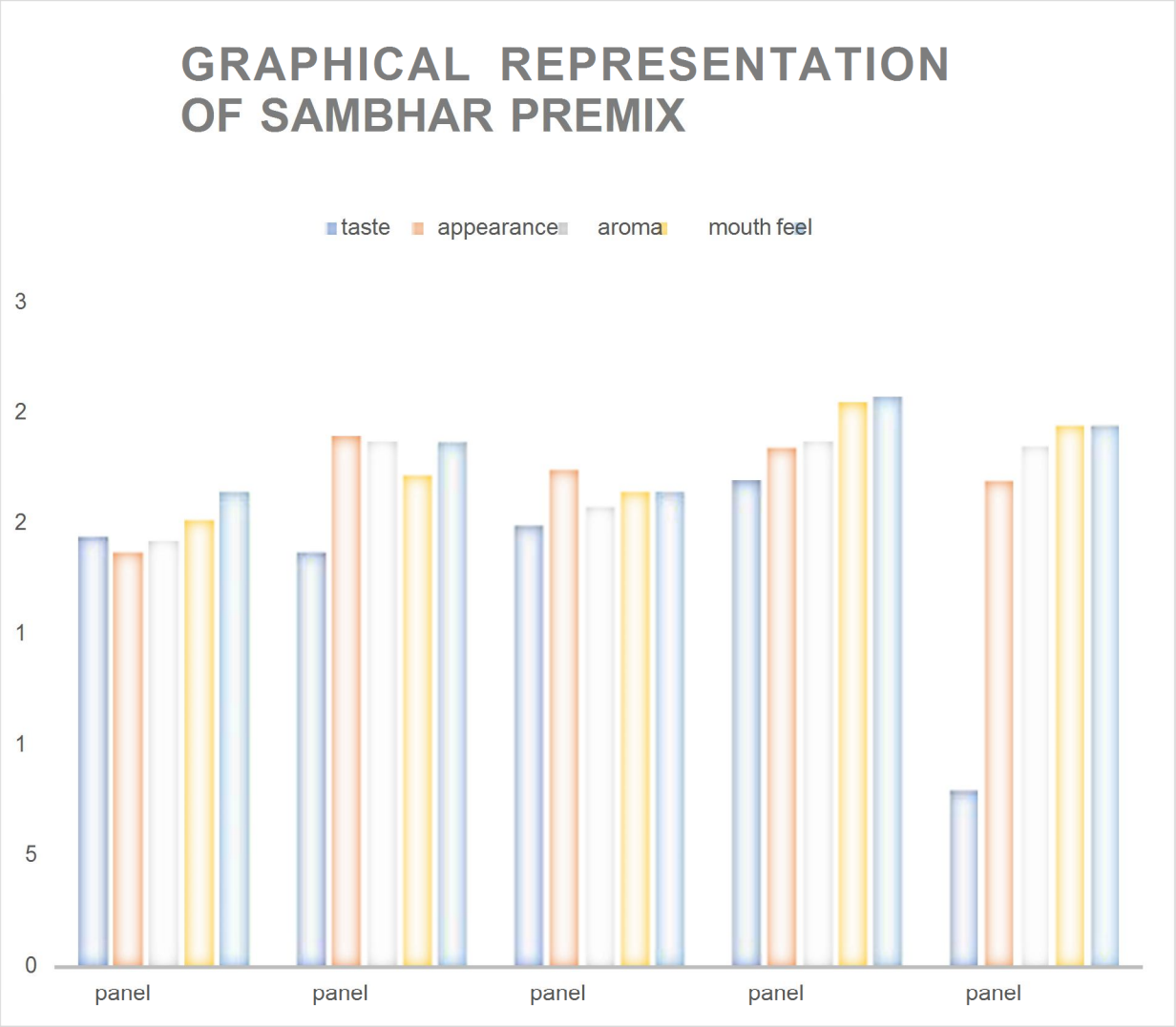
III. FORMULATION TO PREPARE SAMBHAR PREMIX

Sr.no.	Ingredients	weight(gm)
1	Pegion pea	20.23
2	Bengal gram	48.61
3	Black gram splits	23.05
4	Rice	20.66
5	Red chilies	6.47
6	Tamarind	15
7	turmeric	2
8	Coriander seeds	3.50
9	cumin seeds	5.87
10	Fenugreek seeds	5.6
11	Dried fenugreek leaves	0.466
12	Curry leaves	-
13	Desiccated coconut	10
14	Jaggery	15.65

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IV. SENSORY EVALUATION

The prepared sambhar was served to semi trained panel members for sensory evaluation using 9 point hedonic scale with score 9 as excellent and 1 as disliking. The sensory propertiessuch as appearance, colour, consistency, flavor, taste and overall acceptability of finished product were evaluated.



V. PROXIMATE ANALYSIS

Factor and parameters	Result
Moisture content	7.53%
Ash content	9.63gm
Crude fat	7.73gm
Crude fiber	0.05gm
Protein	14.84gm
Total carbohydrate's	61.94gm
Energy value	369.355Kcal

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Nutrients like proteins, carbohydrates, fiber, fats, total minerals were analyzed (AOAC 1990).
*Moisture Content: As shown the moisture content of " PREMIX" was founded to be 7.53%.
*Total Ash: Ash content of " PREMIX" was recorded as 0.92%.
*Crude fat: The crude fat content of " PREMIX" is 7.73g.
*Crude Fiber: The crude fiber content of " PREMIX" is 0.05g.
*Protein content: The protein content of " PREMIX" was calculated as 14.84g.
*Carbohydrates: The carbohydrates of the content of " PREMIX" is 61.94g.

VI. COST ANALYSIS

PRODUCT	QUANTITY	PRICE
pigeon pea	20.25gm	3.645rs
Bengal gram	48.61gm	9.722rs
Black gram dal	23.05gm	4.149rs
Rice	20.66gm	1.239rs
Chili	6.47gm	1.941rs
Tamarind	15gm	4.5rs
Turmeric	2gm	0.4rs
Jaggery	20.65gm	1.239rs
Coriander seed	3.50gm	0.49 Rs
Cumin seed	5.87gm	4.109rs
Dedicated coconut	10gm	2rs
Fenugreek seed	5.6gm	1.96rs
Fenugreek leaves	2.9gm	0.68rs
Curry leaves	4gm	-
Total	100gm	40rs/-

VII. SHELF LIFE

According to our research by doing sensory analysis we observed that the " PREMIX" has ashelf-life of 11 months, after 11 months in " PREMIX" we observe some changes in taste, texture, aroma, flavor . So we observe that its better to use before 11 months.

VIII. RESULTS AND DISCUSSION

Sambhar premix is a quintessential spice blend originating from South India, designed to simplify the preparation of , a traditional lentil-based stew. Comprising a harmonious mixtureof aromatic spices, this premix aims to capture the essence of authentic flavors. Typically, thepremix includes a medley of spices such as coriander, cumin, fenugreek, mustard seeds, turmeric, curry leaves, and sometimes dried red chilies. Each component contributes to the distinctive taste and aroma that define . This premix offers convenience and efficiency, enabling individuals to create a delicious without the need to measure and combine individual spices.

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To prepare , one would cook lentils (usually Toor dal) and various vegetables, then add the premix to the cooked lentils and vegetables, allowing the flavors to meld together beautifully . The resulting dish boasts a rich, tangy, and mildly spicy taste, enhanced by the intricate blend of spices in the premix. is often enjoyed with steamed rice, idli , dosa , or other South Indian staples, serving as a staple part of meals across the region . Its versatility allows for variations in ingredients, catering to different tastes and preferences. This premix has gained popularity not only in South India but also among enthusiasts of Indian cuisine worldwide, offering an accessible way to relish the delightful flavors of withoutthe hassle of individually sourcing and measuring spices.

IX. CONCLUSION

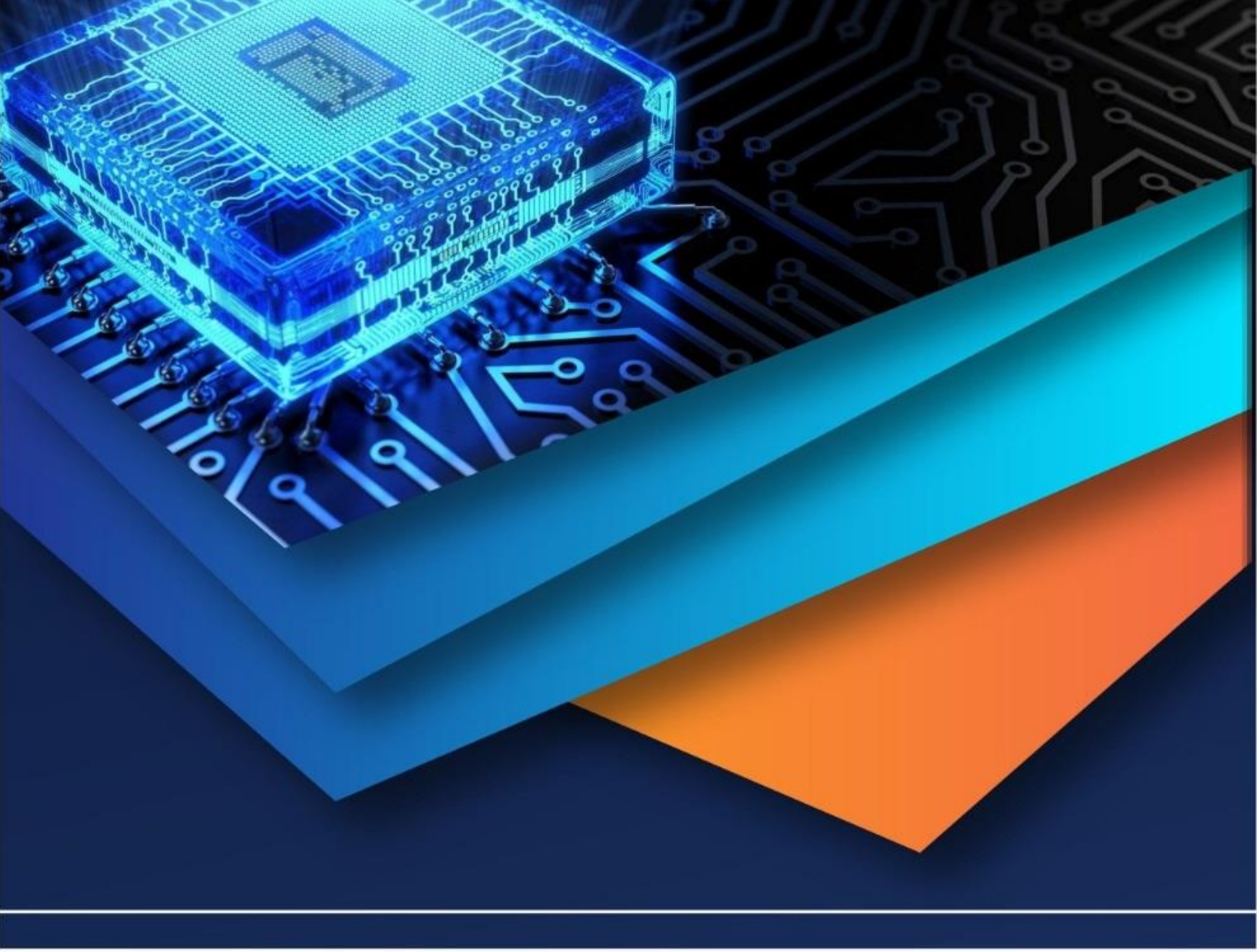
It can be concluded that pigeon pea milling by-products (grits) can be better utilized to develop value added products. Sensory qualities of Ready to cook sambhar powder revealsthat the product was very well accepted and saves time in preparing sambhar. Addition of this powder to seasoned boiling water will yield sambhar in very less time

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