

# Formulation and Standardization of Vegan Jigarthanda

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**Abstract:** The Vegan milk jigarthanda, recognized for its innovation and nutritional benefits. Jigarthanda is a famous Madurai drink, developed with the different ingredients which can be adapted by the lactose intolerance and also comes with the ability to treat insomnia patients. Lactose intolerance is an inability to digest lactose, a sugar found in milk and milk products. This condition often runs in families and can affect both children and adults. Lactose intolerance is most common in Asian Americans, African Americans, Mexican Americans and Native Americans. Insomnia is a sleep disorder in which has trouble falling asleep, staying asleep, or waking up too early. The condition can be short term (acute) or can last a longtime (chronic). The vegan milk jigarthanda which deals with both the disorders and helps in the improvement of the disorders and the ingredients incorporated in the jigarthanda are Badam, cashew, poppy seeds and cotton seeds, which is prepared by processing the mixture of the vegan milk altogether. The addition of these products creates a unique kind of a product with the different taste and the ideal product, which gives a innovative and nutritional based food product to the food products, These products cater to ethical, environmental, and health-conscious consumers who follow a plant-based lifestyle. As the vegan food industry grows, research is expanding into several key areas to improve product quality, nutrition, and sustainability. This study highlights the necessity for further research into the health benefits and applications of vegan milk in functional foods, potentially leading to new dietary strategies and interventions aimed at improving public health outcomes. The integration of vegan milk incorporation in the Jigarthanda represents a promising advancement in functional foods, with significant relevance to therapeutic and personalized nutrition. The findings provide a foundation for further research and validation of vegan milk Jigarthanda as a valuable ingredient is a health promoting food products.

**Keywords-** Vegan milk Jigarthanda, Lactose intolerance, Insomnia, Functional foods, Personalized nutrition, Food innovation

## I. INTRODUCTION

Alactasia Cold Heart Lait is a revolutionary take on the beloved Jigarthanda, specially designed for individuals with lactose intolerance and insomnia. The name “Alactasia” signifies the absence of lactose, while “Cold Heart Lait” reflects its soothing, chilled nature. This innovative vegan beverage not only preserves the essence of the traditional South Indian delight but also introduces afresh, plant-based twist, making it a unique addition to modern vegan cuisine. Crafted with dairy- free alternatives, Alactasia Cold Heart Lait incorporates plant-based milk, natural sleep-inducing ingredients, and a carefully curated blend of flavors to offer both indulgence and wellness. Every sip delivers a creamy texture and a cooling effect, making it perfect refreshment for warm climates while catering to dietary sensitivities. By reimagining Jigarthanda in a way that embraces inclusivity and health benefits, this drink is a testament to the evolving landscape of food innovation. Whether enjoyed as a night time elixir

or a refreshing daytime treat, Alactasia Cold Heart Lait sets a new standard for vegan beverages that prioritize both taste and well-being. Alactasia Cold Heart Lait is not just a delicious plant-based alternative to Jigarthanda; it also offers a range of nutritional benefits, making it a functional beverage for those with lactose intolerance and insomnia. This vegan Jigarthanda is a wholesome, innovative, and functional beverage that caters to both taste and health needs. It's a cooling summer drink, a sleep-supporting elixir, or a lactose-free indulgence, the nutritional composition of the vegan milk jigarthanda is analyzed. The resultant product is found to be nutrient-dense, containing significant amounts of energy, protein, carbohydrates, sugars, fats, and essential minerals such as calcium and iron. Incorporating vegan milk into an idealized version of jigarthanda not only capitalizes on the plant's nutritional profile but also aligns with the growing trend of personalized nutrition and therapeutic applications. This innovative formulation aims to enhance dietary intake, support overall health, and provide specific benefits for Lactose intolerance and sleep cycle Management. The integration of natural, sustainable ingredients like poppy seed and cotton seeds into food drinks like Jigarthanda is a dual advantage of health promotion and environmental sustainability. This study underscores the importance of further research into the health benefits and applications vegan milk in functional foods. By exploring new dietary strategies and interventions, it is possible to develop Innovative food products that contribute to improved public health outcomes. The promising results of this Research pave the way for future investigations and validation of vegan products as a valuable ingredient in Health promoting food products.

## OBJECTIVES

- To formulate vegan milk jigarthanda from the plant-based ingredients like seeds and nuts
- To research and develop a unique and empowering vegan product
- To conquer the nutritional profile of the developed product

## II. MATERIALS AND METHODS

### Procurement of raw materials

The raw materials such as Badam, cashew, poppy seeds, cottonseeds, Almond gum and sugar are purchased from the markets

### Formulation of Vegan Milk Jigarthanda

The vegan milk jigarthanda is formulated and Analyzed by the basic screening and assessing processes and the bioactive components present in the poppy seed milk and other ingredients have been linked to potential benefits in sleep modulation and digestive support for lactose- intolerant individual. And the drink designed in the easy way of consumption for the individual which can't be in regular consumption but it may act as a alternative.

### Standardization of vegan milk Jigarthanda

To formulate and Standardize the vegan jigarthanda , the ingredients are carefully analyzed and blended into a mixture. It's a blend of Badam (5g), Cashew (5g), Poppy Seeds (10g), Cotton seeds (5g) and the addition of Almond gum, sugar and vanilla essence to the drink enhances taste profile. The preparation is forwarded by grinding, filtering, the milk and the mixture of them and the prepared drink is stored in the Refrigeration temperature.

## Nutrient Composition of Vegan Milk Jigarthanda

Nutrient analysis is a crucial step in food product development, providing detailed information about the Macronutrient (proteins, fats, carbohydrates) and micronutrient (vitamins, minerals) content of a product. This Process ensures that the food meets dietary requirements and health standards, supporting informed consumer Choices and promoting overall well-being. In the case of Vegan Jigarthanda nutrient analysis validates its nutritional benefits by confirming the presence of key nutrients known for their Health-enhancing properties. The analysis involves preparing samples, conducting laboratory tests using different techniques.

## Organoleptic evaluation of Vegan Jigarthanda

A comprehensive sensory evaluation of the Vegan Jigarthanda was conducted using a Hedonic scale rating to assess its acceptability. The evaluation focused on key attributes such as appearance, Texture, flavor, and aroma. Participants rated the appearance of the muesli as highly appealing, appreciating the vibrant mix and uniform ingredient distribution. Overall, the hedonic scale ratings indicated strong consumer acceptance, highlighting the product's balanced sensory attributes and potential as a functional food product.

## III. RESULTS AND DISCUSSION

### Nutrient Composition of Vegan Jigarthanda

The analysis of Vegan milk Jigarthanda revealed a nutrient-dense product with the following composition per100g: energy 80Kcal, protein 3g, carbohydrates 15g, total sugar 15.7g, total fat 1.10g, vitamin C 0.9mg, calcium 60.8mg, and iron 2.9 mg. This composition highlights the vegan milk potential as a balanced and nutritious food option, leveraging the rich nutritional profile of the Jigarthanda.

### Organoleptic evaluation of Vegan Jigarthanda

The sensory evaluation on a hedonic scale checked the appearance, texture, flavor, and aroma of Jigarthanda. This is a Nutritious blend of ingredients, including nuts (almonds, cashews) poppy seeds, cottonseeds, Almond gum and vanilla essence was visually attractive and homogeneously distributed. Texture scored high in terms of satisfied having of Jigarthanda with a blend of nuts and seeds even though some audience may not accept the nutty flavor and the aroma of poppy seed but even though the dominance of cottonseed and other nuts gave a good aroma and the thick consistency of the milk indicates the absence of water addition The flavor profile was harmonious with earthy notes from Badam and cashew that complemented Sweetness from added sugar ,The appearance was inviting with the richness of cotton ice-cream, nutty fragrance, and a hint of Slightly sweet and nutty, with a faint floral note. In general, Jigarthanda was mostly Acceptable, suggesting good prospects for consumer acceptance.

## IV. RESULT AND DISCUSSION

A comprehensive study on vegan milk Jigarthanda highlights its nutritional and therapeutic potential as a novel functional beverage. Nutrient analysis revealed a rich profile, including significant amounts of energy, protein, carbohydrates, natural sugars, healthy fats, calcium, iron, and essential

vitamins. Sensory evaluation conducted using a hedonic scale, demonstrated strong consumer acceptance, with high ratings for its visually appealing presentation, creamy texture, well-balanced sweetness, and inviting aroma. The incorporation of plant-based milk and natural functional ingredients not only enhances its nutritional value but also aligns with trends in personalized nutrition and therapeutic applications, particularly for digestive health and overall wellness. The findings emphasize the need for further research to validate these benefits and explore scalability for commercial production. This study contributes to the expanding field of functional beverages, highlighting the potential of nutrient-rich, plant-based innovations in indulgent, occasion-based consumption.

## V. CONCLUSION

The study on vegan milk Jigarthanda demonstrates its potential as a highly nutritious and therapeutic functional beverage. Nutrient analysis highlighted its rich composition, including healthy plant-based proteins, carbohydrates, essential fats, vitamins, and minerals such as calcium and iron. Sensory evaluation using a hedonic scale confirmed strong consumer acceptance, with high ratings for its creamy texture, visually appealing presentation, well-balanced sweetness, and aromatic profile. The integration of plant-based milk and natural functional ingredients not only enhances its nutritional value but also aligns with contemporary trends in personalized nutrition and therapeutic applications, particularly for gut health and anti-inflammatory benefits. These findings emphasize the importance of incorporating nutrient-dense, plant-based ingredients in specialty beverages, offering both health benefits and sustainable alternatives to traditional dairy-based drinks. The study underscores the need for further research to validate its functional properties and therapeutic potential, as well as explores capability for commercial production. With its unique blend of tradition and innovation, vegan milk Jigarthanda emerges as a promising functional beverage for indulgent, occasion-based consumption.

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