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# Ragi Mudde: A Nutritional Powerhouse from Karnataka's Culinary Tradition: A Review

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## ABSTRACT

Ragi Mudde, a traditional preparation from finger millet (*Eleusine coracana*), is a culturally and nutritionally significant staple of Karnataka, India. Millets like ragi are highly nutritious, drought-resistant and adaptable to semi-arid conditions, making them vital for food security and sustainable agriculture. Ragi Mudde is not only a source of carbohydrates, calcium, iron and dietary fiber but also an integral part of Karnataka's culinary heritage, reflecting rural traditions, agrarian lifestyles and local cultural identity. The study analyzed traditional preparation methods, physicochemical properties and nutritional composition of Ragi Mudde. Ragi flour of varying particle sizes (150 µm, 300 µm, 450 µm, 600 µm, 750 µm) was used to prepare Ragi Mudde following conventional cooking techniques. Physical, chemical and functional properties such as bulk density, water absorption, moisture content, fat content and ash content were measured. The work was conducted at RNS Institute of Technology during 2025. Particle size of ragi flour significantly influenced the physicochemical characteristics of Ragi Mudde. Bulk density decreased while water absorption, moisture content, fat and ash content increased with coarser flour. Ragi Mudde prepared from finer flour had denser texture, while coarser flour yielded softer and more water-absorbent mudde. Nutritionally, Ragi Mudde was a rich source of calcium, iron, dietary fiber and moderate protein, supporting energy needs and overall health. Ragi Mudde is a culturally significant, nutrient-dense functional food that embodies the culinary heritage of Karnataka. Its preparation methods, nutritional value and adaptability highlight the relevance of traditional millet-based diets in contemporary nutrition and sustainable food systems. Preservation and promotion of Ragi Mudde can support and provide a sustainable, health-promoting dietary option for modern and traditional populations alike.


**Key words:** *Eleusine coracana*, Finger millet, Karnataka cuisine, Millet-based diets, Nutritional value, Physicochemical properties, Ragi mudde, Traditional foods.

The culinary tradition of India strongly engages the usage of indigenous grain and millets are central to this tradition because they are nutritionally dense, resilient and adaptable to a variety of climatic conditions. The recent scientific data has revealed that millet-based diets have potential to solve the nutritional deficiency problem.

Finger millet (*Eleusine coracana*), which is also called ragi, is one of the most valuable types of millets that are gaining new popularity because of its outstanding nutritional value and ecological flexibility. Finger millet or ragi, is a crop of two folds, nutritious and ecologically versatile. It grows in severe agro-climatic conditions, hence a good option to grow in semi-arid and drought-prone areas, thus providing food security to vulnerable regions (Mehta *et al*., 2024). Finger millet is also nutritionally rich in complex carbohydrates and dietary fibres such as arabinoxylans and is especially renowned in its high fibre, calcium and micronutrient content.

Ragi Mudde, pronounced rah-ghee mood-day, is one of the most famous and culturally important dishes cooked using finger millet, it is a traditional dish of Karnataka, where ragi flour is cooked into soft, round balls (Shivakumara and NU, 2023). Being a popular dish in rural and agrarian populations, Ragi Mudde is not only appreciated due to its satiety and strength-building effects but also due to its strong ties to the food culture of Karnataka (Rathore *et al*., 2019). It is a good example of how traditional diets based on millets can support modern nutrition requirements as it is a wholesome, affordable and nutrient-dense food. It contains a lot of dietary fiber, calcium, iron and even essential amino acids, which are perfect in physically strenuous agrarian lifestyles (Ramesh *et al*., 2025). It is also low glycemic index and gluten-free, therefore, it is beneficial for diabetic and gluten intolerance patient (Asrani *et al*., 2022).

The sustained popularity of ragi Mudde in Karnataka is also intimately connected to the fact that finger millet is a crop that has been cultivated regionally with less demand of inputs and is drought resistant, hence fits into the

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sustainable agricultural system. Traditionally, this food was linked to the thrifty power of agrarian societies, which provided long-lasting satiety and energy to work (Kaur *et al*., 2024). Beyond health and sustainability, traditional diets such as ragi mudde play a vital role in preserving cultural identity and culinary knowledge passed down through generations (Feldman and Wunderlich, 2022). This traditional food wisdom should be identified and incorporated into the current nutrition policies to solve the current and urgent problems of malnutrition, food insecurity and environmental degradation. In addition, it sustains local economies and enhances food sovereignty. This paper analyses the conventional preparation, cultural relevance and nutrition of ragi mudde- a type of food made of finger millet that has become an inherent part of Karnataka cuisine especially in the rural and agricultural population.

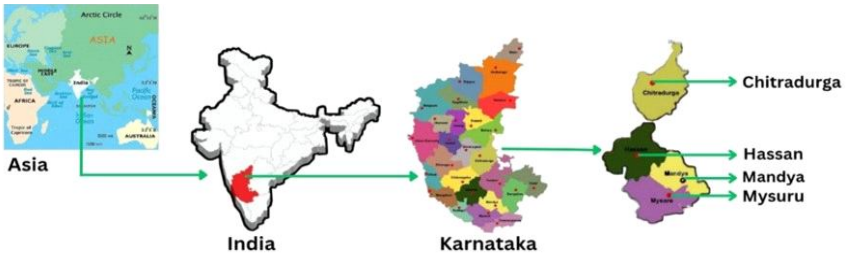
To the best of our knowledge, there is a shortage of information in the literature predominantly focused on the preparation method and physicochemical characteristics of ragi mudde. Despite its cultural and nutritional significance, comprehensive data on preparation practices and physicochemical parameters (Such as moisture content, texture, pH and nutrient composition) associated with ragi mudde remain fragmented in the literature. To address this gap, this review generally focuses on the traditional preparation methods, physicochemical properties and health benefits of ragi mudde. It also discusses the background and cultural significance of ragi mudde, as it is deeply connected with the historical, social and dietary traditions of communities in Karnataka and other regions of South India.

## Origins of ragi mudde in rural Karnataka, India

Ragi Mudde, a traditional preparation of finger millet (*Eleusine coracana*) (Ankita and Seth, 2025), traces its roots to the agrarian societies of rural Karnataka, especially in the districts of Mysuru, Mandya, Hassan and Chitradurga (Fig 1).

Its eminence is strongly related to the cultivation of ragi, a drought-resistant and tough crop which has been cultivated since the Neolithic era on the Deccan Plateau (Kumar *et al*., 2024). As ragi became a commodity available to most people living in rural Karnataka over the centuries, communities had devised easy and effective methods of cooking and utilizing it. Cooking ragi flour into a thick paste and moulding into soft balls was one of these ways (Hazareesingh, 2020) and it did not use a lot of ingredients, retained nutrition and could help the body meet high energy demands to work in the fields. In such a way, ragi mudde gradually developed as a convenient option to maintain agrarian families, particularly in cases of food shortages or agricultural lean periods (Anitha *et al*., 2022). Ragi Mudde became a food staple because it was cheap, easy to cook and rich in nutrients, such as calcium, iron and fiber (Downs *et al*., 2022). It was also inexpensive and available, especially when there was crop failure and thus, it served as a reliable source of food to low-income and marginal farmers (Timilsina *et al*., 2025). It is still a daily meal in most villages, particularly lunch. The socio-economic significance of ragi has also been enhanced by local efforts over the past years, including the Karnataka Millet Mission (Yadav *et al*., 2024). Such programs have encouraged the use of such millets like ragi, as food as well as cultural heritage. Although the urban appeal of millets has exploded with wellness consciousness and millet-related initiatives, Ragi Mudde is a rural Karnataka staple that represents not just austerity and nutrition but also the preservation of native eating customs and self-identification (Singh and Vemireddy, 2023).

In addition to its dietary value, Ragi Mudde has a strong cultural and ritual meaning among rural population of Karnataka. It is also prominently used in harvest festivals like Sankranti and Nagara Panchami (Festivals celebrated in India) where it is regularly offered to gods as a representation of the abundance of the earth after which it is eaten together (Ankita and Seth, 2025). Conventionally, a preparation in auspicious situations indicates a sense of humility and respect to nature and divine powers. Ragi Mudde is abundantly mentioned in local songs, proverbs and sayings, demonstrating pride in rural food self-sufficiency and culinary traditions (Hazareesingh, 2020). In some areas, it is also included in family rituals and offerings to ancestors, reinforcing its spiritual and emotional value (Ankita and Seth, 2025). Its spherical shape is seen as representing wholeness and unity, embodying the cohesive spirit of village life. These symbolic and ritualistic associations show that Ragi Mudde is more than just a meal-it is a vital part of rural identity, cultural continuity




(Source: Author's work).

**Fig 1:** Location of districts in the map of Karnataka, India.

and the shared memory of Karnataka's agrarian roots (Kumar and Dubey, 2025).

## Traditional preparation of ragi mudde: Ingredients and cooking technique

Climate change and global warming are of great concern to agriculture worldwide and are among the most debated and discussed issues in today's civilization (Samanta *et al*., 2025). Ragi mudde is a traditional dish in Karnataka cuisine that is prepared by using two simple yet nutritive rich ingredients ragi flour and water. Ragi flour is prepared using highly ground finger millet (*Eleusine coracana*) which is a grain that is known to be very healthy. It is also a great source of calcium, iron, dietary fibre and polyphenols and therefore it is particularly useful to populations experiencing the risk of nutritional deficiencies (Fig 2).

It is cooked by boiling water in a thick bottomed utensil and then adding ragi flour bit by bit and stirring continuously. The flour is then mixed vigorously using a wooden stick which is called mudde kolu (traditional wooden stick) to make the mixture thick smooth and free of lumps. This makes the result to have a doughy texture which is shaped into soft balls termed as mudde**.** The gelatinization and the mechanical stirring of the mixture is also what makes it have that distinguishing texture and digestibility (Sharma *et al*., 2017). This way of cooking represents not only the traditional knowledge but also the applied nutrition, which proves the relevance of indigenous culinary practices even in the present-day dietary interventions. This traditional method of cooking (Fig 3 and 4) illustrates not only the step-by-step preparation of ragi mudde but also embodies applied nutritional knowledge, highlighting the continued relevance of indigenous culinary practices in contemporary dietary interventions.

Ragi Mudde is usually cooked and served in a round shape and is commonly served on a steel plate or a banana leaf with a thin and spicy gravy called saaru or bassaru (Ananthanarayan *et al*., 2019). The culturally most suitable method to eat mudde is using fingers as it improves the sensory experience and helps to be more mindful of the process of eating (Shivakumara and NU, 2023). It is pinched off in a small portion, rolled into a ball and dipped into the spicy broth and then swallowed without chewing (Chandra *et al*., 2016). This way enables the mudde to absorb the flavours of the broth which makes it a delightful and appetizing meal (Fig 5). The accompaniments are usually dependent on family preferences, such as vegetarian gravies such as soppina saaru or non-vegetarian such as mutton curry (Hazareesingh, 2020). The use of hands in eating ragi mudde is not only a way of showing tradition but also aids in digestion and control of portions (Ankita and Seth, 2025).

Moreover, the physical interaction with food is a cultural value that has been deeply embedded into the Indian food culture A culture of traditional serving sustains the authenticity of the rural food culture in Karnataka and fortifies cultural intergenerational transmission (Kumar and Dubey, 2025). Although ragi mudde is traditionally prepared by



(Source: Author's work).

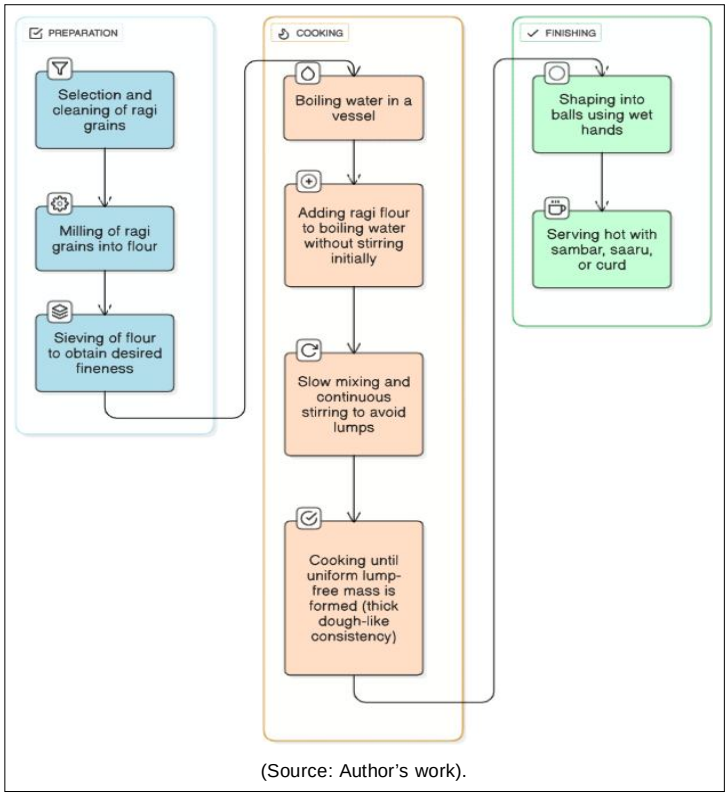
**Fig 2:** Harvesting and post-harvest processing of ragi (Finger millet): Field view, threshing process using mechanical thresher and collection of cleaned grains into gunny bags.

cooking finger millet flour into soft, round balls that are eaten with spicy lentil-based saaru or meat curries, a number of regional and contemporary variations of this dish have developed to meet various tastes and nutritional requirements. In some places in Karnataka, cooked rice or broken rice is added in the ragi flour to enhance texture



(Source: Author's work).

**Fig 3:** Step-by-step preparation process of ragi mudde.




(Source: Author's work).

**Fig 4:** Process flow of ragi mudde preparation.

and palatability among the first-time consumers. Where the emphasis is on increased protein consumption, ragi mudde is served with pulses-based gravies like hesaru bele saaru (green gram curry) or kalu saaru (legume-based stew). Other families add buttermilk or curd when eating, particularly in the summer, to aid digestion and cooling. The health-conscious and urban consumers have also started to play around with the miniature forms of mudde, which are accompanied by vegetable stews or dishes that have a low oil content. In some places, ragi balls are steamed with an addition of some greens such as spinach or drumstick leaves to make a more nutrient-richer version. Such varied preparations are indicative of the flexibility of ragi mudde, which makes it not just a cultural staple but also a very versatile ingredient in changing diets.

## Nutritional profile of ragi mudde: A balanced and functional food

Determination of physical and mechanical properties of seeds and agricultural products is important in designing of harvesting, handling and processing equipment, transport, yield and store of the crop (Kumar *et al*., 2025). One of the traditional food items is ragi mudde which is prepared with ragi (Finger millet) flour and is a big source of carbohydrates, calcium, iron, protein and balanced amino acids and constitutes the staple diet in rural areas of South India. Ragi mudde is a substantial part of the agrarian culture of Karnataka and has become more than a source of sustenance, also representing tradition and cultural identity (Hazareesingh, 2020). In addition to cultural importance, ragi mudde has become a functional food because of its nutritious composition. Regardless of its popularity, little scientific knowledge exists on how the particle size of ragi flour can determine the physico-chemical characteristics of ragi mudde, which in turn can determine the texture and palatability of ragi mudde and nutritional value.



(Source: Author's work).

**Fig 5:** Ragi mudde served with saaru on a plate.

The processing methods, particularly milling and sieving, are very essential in defining the functional and nutritional qualities of cereal products. Flour particle size variation has been reported to affect the following properties; bulk density, water absorption, moisture retention, fat content and ash (mineral) content of several cereal preparations. Nonetheless, there is dearth of systematic studies on such parameters in the context of ragi mudde.

In order to address this knowledge gap, the study was set up to determine the physico-chemical characteristics of ragi mudde made with ragi flour of different particle sizes (150 m, 300 m, 450 m, 600 m and 750 m). To obtain the desired particle distributions, sieving was done to get the different fractions of the Ragi flour through the standard mesh sizes. Mudde was then cooked in a traditional way.

As shown in Table 1, the bulk density, water absorption capacity, moisture content, fat content and ash content of ragi flour are presented, providing detailed information on the effect of particle size on the final quality of ragi mudde. Such results can inform the household and the industrial processing of ragi-based products, which will ultimately lead to better nutritional and sensory properties, adjusted to consumer needs.

Physico-chemical characteristics of ragi mudde prepared using ragi flour of various particle sizes (150 0, 300 0, 450 0, 600 0 and 750 0) were assessed in terms of bulk density, water absorption, moisture, fat content and ash content.

- Bulk density was observed to decrease with increasing particle size, ranging from 1.51 g/cm$^3$ in the finest flour (150 µ) to 0.99 g/cm$^3$ in the coarsest flour (750 µ). This indicates that finer flours result in denser mudde, while coarser flours make it lighter.
- Water absorption capacity showed an increasing trend with particle size, rising from 121.3% in the 150 µ sample to 132.2% in the 750 µ sample. Higher water absorption is beneficial for yielding softer and smoother mudde.

**Table 1:** Physico-chemical properties of ragi mudde.

| Attributes | S1 (150 µ) | S2 (300 µ) | S3 (450 µ) | S4 (600 µ) | S5 (750 µ) |
|---|---|---|---|---|---|
| Bulk density (g/cm$^3$) | 1.51±0.23 | 1.47±0.30 | 1.42±0.29 | 1.10±0.22 | 0.99±0.27 |
| Water absorption (%) | 121.3±3.5 | 122.0±3.0 | 123.2±2.8 | 131.7±2.8 | 132.2±2.8 |
| Moisture (%) | 57.7±0.3 | 58.2±0.4 | 58.9±0.3 | 59.6±0.2 | 60.2±0.2 |
| Fat content (%) | 1.35±0.1 | 1.37±0.1 | 1.38±0.1 | 1.71±0.1 | 1.81±0.1 |
| Ash (%) | 1.42±0.1 | 1.45±0.1 | 1.47±0.1 | 1.54±0.1 | 1.57±0.1 |

(Source: Sunil *et al*., 2022).

- Moisture content slightly increased with coarser particles, from 57.7% to 60.2%, suggesting better water retention in mudde prepared from coarser flour.
- Fat content was higher in coarser samples, increasing from 1.35% in the finest flour to 1.81% in the coarsest flour.
- Ash content also increased gradually with particle size, from 1.42% to 1.57%, indicating higher mineral content in the mudde prepared from coarse fractions.

Ragi is a good source of complex carbohydrates which provides energy over a long period of time and it is especially useful to those whose work is physical. It has high dietary fibre, particularly insoluble fibre, which is beneficial to digestive health and satiety**.** Ragi is also a source of moderate amounts of plant-based protein, which is important in muscle repair and immune response (Kumar *et al*., 2024) and is better in terms of protein content than polished rice but a little bit lower than wheat (Dekka *et al*., 2023). Ragi is unique in the sense that it contains a high level of calcium of about 344 mg per 100 grams, which is beneficial to bone health and prevention of osteoporosis (Harinarayan *et al*., 2021). It is also a source of iron (3.9 mg/100 g) which is necessary in the formation of haemoglobin and prevention of anemia (Anitha *et al*., 2021). Additionally, Ragi is a good source of magnesium and contains polyphenols and antioxidants that combat oxidative stress and inflammation (Kumar *et al*., 2021). A healthy and varied diet plays a fundamental role in supporting balanced physical development, maintaining overall health and mitigating the risk of chronic diseases (Belmejdoub *et al*., 2025).

Ragi has a better balance of nutrients when compared to most of the cereals that are consumed regularly like maize and wheat. As shown in Table 2, whereas maize is high in calories but low in fiber, vitamins and minerals and wheat contains gluten, making it unsuitable for people with gluten intolerance, ragi is rich in calcium, iron and fiber and is naturally gluten-free.

Overall, Ragi Mudde is not only a cultural icon of Karnataka, but a nutritious and health-oriented dietary option of the contemporary regimes.

## Health benefits and functional properties

Ragi mudde has various health benefits and functional properties, which makes it an apt functional food. It is also important in maintaining the level of blood sugar since it has a low glycemic index and carbohydrates are slowly digested (Patel *et al*., 2018). The dietary fiber and polyphenols content leads to better glucose metabolism and lower postprandial spikes (Bhujle *et al*., 2024). The consumption of ragi mudde has also demonstrated positive results in lowering the total cholesterol and LDL levels, thus aiding in the management of the lipid profile (Anitha *et al*., 2021). Being a source of antioxidants, including ferulic acid and catechins, ragi can alleviate oxidative stress and inflammation, which are major risk factors of cardiovascular diseases (Murtaza *et al*., 2014). Its cardioprotective effect has been demonstrated by studies that have identified it as protecting the endothelium and regulating blood pressure. Moreover, the phenolic compounds of ragi mudde are associated with the enhancement of vascular functioning and the decreased atherogenic risks (Park *et al*., 2021).

Ragi mudde contains a lot of insoluble and soluble fibers, which facilitate digestion and promote the health of the gut (Kumari *et al*., 2025). Fiber improves bowel movements by increasing the bulk and stimulating peristalsis thereby relieving constipation and regularizing bowel movement (Tavhare, 2024). It also helps to satiate and control weight because of its high fiber and protein content (Raghuram *et al*., 2021). The intake of meals made of ragi results in delayed satiety and less calorie intake which are essential in weight management (Shobana *et al*., 2007). Complex carbohydrates found in ragi have a slow rate of digestion which delays the release of energy and minimizes hunger pangs (Mohan *et al*., 2004). It is high in calcium and iron, which are beneficial to bone health and nutrients to the mother (Ilangovan *et al*., 2024). Ragi Mudde has been traditionally a significant source of sustenance to manual workers and women who are lactating due to its lactogenic and strength-giving abilities (Palamthodi *et al*., 2021). In contemporary times, when the modern communities are in search of healthier, plant-based and sustainable food, ragi mudde has found a new life outside its rural roots. It is not only a symbol of rich culinary heritage of Karnataka but also a functional food that keeps on sustaining the nutritional requirements of both the traditional and the modern life.

Unlike fermented dairy products like dangke, ragi mudde does not undergo any microbial fermentation, thereby minimizing the development of beneficial microflora (Mandal *et al*., 2025). However, its high moisture content makes it susceptible to microbial contamination if not stored or handled properly (Nickhil *et al*., 2024). Mismanagement of storage conditions in terms of high ambient temperatures and humidity may result in growth of spoilage microorganisms and foodborne pathogens like *Bacillus cereus* and *Staphylococcus aureus*. The danger becomes even more significant when ragi mudde is stored longer or in unhygienic containers (Gouthami *et al*., 2024). Microbial risks may be avoided by following safe food handling practices, including hand washing, clean utensils and prevention of cross-contamination (Iulietto and Evers, 2023).

**Table 2:** Comparative nutritional composition of ragi, maize and wheat (per 100 g).

| Nutrient (Per 100 g) | Ragi | Maize | Wheat |
|---|---|---|---|
| Carbohydrates | 72.6 g | 73 g | 71 g |
| Protein | 7.7 g | 9.2 g | 11.6 g |
| Calcium | 350 mg | 26 mg | 41 mg |
| Iron | 3.9 mg | 2.7 mg | 3.5 mg |

(Source: www.fao.org).

Eating soiled ragi mudde may lead to gastrointestinal complications, particularly in susceptible groups of people, such as children and the aged. Therefore, the preparation instructions must focus on its hygienic preparation, direct consumption and not storing it in the fridge longer than several hours (Hazareesingh, 2020).

## The evolving landscape of ragi mudde consumption: From traditional to modern adaptations

Rational nourishment and nutrition of food are closely connected to the health of humans. In recent decades, science has made great efforts to understand how nutrients and functional ingredients regulate human physiology and responses (Shiri *et al*., 2025). Ragi Mudde is a traditional food of Karnataka and South India and its consumption pattern and positioning have undergone considerable change. Ragi Mudde is traditionally prepared by mixing finger millet flour with water and cooking them into soft balls and it is known to be a nutritionally rich food because it is rich in calcium and fiber. Health trends and policy changes have inspired the millet revival movement, which has led to the appearance of a variety of modern forms, including ready-to-eat (RTE) products and instant mixes. Such innovations address the needs of urban consumers that have limited time and want to remain healthy without sacrificing nutrition. There are instant mixes, which are usually augmented with seasoning or additional nutrients, which are taking shelf space in supermarkets and online platforms, thus bringing the dish closer to the rest of the world, outside of rural regions. Ragi malt mix, ragi dosa mix, ragi idli mix, ragi mudde mix, ragi porridge mix, ragi roti mix, ragi cake/ brownie premixes, ragi laddu mix, ragi flakes and muesli and ragi-based baby food mixes are some of the popular ragi based products in the market. Ragi Mudde is currently also included in the menus of restaurants in cities, sometimes with gourmet variations, as part of the wider revival of millets in India. This is an indicator of the increased consumer preference of the indigenous grains because of their perceived health effects and sustainability (Dani and Dasgupta, 2021). The restaurants in Bengaluru, Hyderabad and Chennai began to serve the ragi mudde as a dish in millet thalis or with new accompaniments such as fusion curries, aimed at health-conscious millennials and food adventurers.

Policy-based efforts, like addition of millets in mid-day meal programs, have acknowledged the potential of ragi mudde in solving malnutrition. Karnataka's school feeding programs have piloted millet-based meals, including Ragi Mudde, aiming to deliver essential micronutrients and promote local agriculture (Government of Karnataka, 2023). Additionally, Ragi is being incorporated into fitness and diabetic diets due to its low glycemic index and satiety-inducing properties (Geetha *et al*., 2020).

The visibility of Ragi Mudde has further been amplified by digital campaigns and millet-focused start-ups. Brands such as "Slurrp Farm" are leveraging social media and influencer marketing to position Ragi as a superfood (Medda, 2025). The start-up companies such as "Millets amma" work with the chefs and nutritionists to create and market recipes, thereby restoring the interest in young consumers (Soni, 2024).

## Policy support and market potential for ragi mudde

Traditional millet-based foods such as Ragi Mudde are experiencing a revival because of the changing dietary habits, increase in nutritional-consciousness and strong policy advocacy to mainstream millets. Government Initiatives as well as upcoming market trends offer a tremendous chance to make Ragi Mudde a product on a wide and multi-cultural platform. With the UN Food and Agriculture Organization mission to ensure climate-resilient, nutrient-dense crops, the Government of India has declared the year 2023 to be the International Year of Millets (Food and Agriculture Organization of the United Nations, 2022). Such international awareness has repositioned smaller staples such as ragi as smart foods due to their positive nutritive density and environmental impact (Bandyopadhyay and Patnaik, 2025). Even the flagship programs that intend to address malnutrition, like Poshan Abhiyaan, have raised the image of millets like ragi as a novel way to boost the health of citizens, especially women and children (Kumar *et al*., 2025).

Considering its nutrition composition and cultural context, ragi mudde can be regarded as of immense potential when it comes to its integration into state schemes of state-sponsored nutrition like mid-day meals, anganwadi nutrition schemes (Karnataka Government Schemes, 2020) and diet propagated through Ayushman Bharat wellness Centre (Ministry of Health and Family Welfare, 2019) particularly in millet-rich states like Karnataka andhra Pradesh and Tamil Nadu. Previous studies have revealed that the addition of millet-based dietary sources such as ragi mudde to school feeding initiatives enhances micronutrient status, body mass index (BMI) and cognitive abilities of children (Anitha *et al*., 2019).

As consumption of functional foods increases, ragi mudde opens new channels of product innovation such as instant mixes, frozen form and fortified readymade meals. Meanwhile, there is growing agro-tourism on traditional millet dishes as a potent instrument of rural entrepreneurship and gastronomic tourism. Such activities as farm-to-table dining and millet cooking classes not only applaud sustainable food systems, but also present local history (Anil and Misra, 2023). The expanding market has also been occupied by the emerging consumer trend of acquiring ethically produced and health-enhancing foods. Influencer marketing tactics are another way to redefine consumer perception, one that frames Ragi Mudde as a wellness-focused product of high quality (Suresh *et al*., 2025).

## CONCLUSION

Ragi Mudde is an unrivalled symbol of culinary tradition of South India that is rooted deep in cultural and day-to-day lives of its citizenry-especially in Karnataka. Through centuries, it has been much more than a dish; it symbolizes food, strength and minimalism. It still retains its place on the dining tables of rural and urban families, proving its evident cultural value and the emotional connection the community has with conventional food.

As the modern world continues to grow in health awareness and people resoundingly seek out ways of maintaining a more balanced relationship with food, ragi mudde is gaining credibility as a staple of the past and nutrition of the future. Ragi, being a rich source of calcium, iron, fiber and the essential amino acids, is an excellent complement to refined grains. It has low glycemic index and is gluten free so this makes it particularly appropriate to diabetics, the aged and those with special diet. With the current trend of global food culture moving toward plant-based and functional food, Ragi Mudde can become a culturally down-to-earth as well as nutritionally conscious food.

Yet, preserving the legacy of ragi mudde does not mean resisting change. Rather, it calls for thoughtful innovation-adapting modern cooking techniques, exploring new pairings and presenting it to broader audiences without diluting its essence. Integrating traditional knowledge with contemporary nutrition science and strategic food marketing can play a pivotal role in ensuring its continued relevance. From local kitchens to global wellness menus, ragi mudde deserves a place at the forefront of sustainable and nutritious food movements.

Ultimately, honouring ragi mudde goes beyond preserving a recipe-it is about celebrating ancestral wisdom, supporting sustainable agriculture and fostering healthy dietary habits. By striking a meaningful balance between tradition and innovation, we can ensure that ragi mudde continues to nourish not only our bodies but also our identities and cultures for generations to come.

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### Disclaimers

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### Conflict of interest

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