



International Journal of Agriculture and Food Science

ISSN Print: 2664-844X
 ISSN Online: 2664-8458
 NAAS Rating (2025): 4.97
 IJAFS 2025; 7(11): 198-202
www.agriculturaljournals.com
 Received: 12-08-2025
 Accepted: 16-09-2025

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Nutritional analysis of Assamese *thali*

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DOI: <https://www.doi.org/10.33545/2664844X.2025.v7.i11c.959>

Abstract

The present study explores the nutritional composition and mineral content of Traditional Assamese cuisine, focusing on a typical Assamese *thali* and its constituent dishes. Assam is a northeastern state in India, with a rich culinary heritage influenced by its geography, climate, and socio-cultural history. The Assamese dishes are characterized by the use of local ingredients, minimal spices, and a preference for boiling, steaming, and fermenting techniques. Rice, particularly joha and bora, forms the staple food, whereas dishes incorporate a range of vegetables, pulses, and herbs to create diverse taste profiles such as *khar* (alkaline), *tenga* (sour), and *teeta* (bitter). The proximate composition analysis of an Assamese *thali* and its components, including *bhat* (cooked rice), *masoor dali* (lentil curry), *aloo pitika* (mashed potatoes), *bengena fry* (fried eggplant), *khorsa* (bamboo shoot pickle), and *lai xaak bhaji* (mustard greens), showed a balanced distribution of nutrients. The *thali* exhibited moisture (75.54 ± 3.04 g/100 g), protein (4.99 ± 2.32 g/100 g), fat (9.65 ± 0.94 g/100 g), carbohydrate (10.54 ± 2.85 g/100 g), total mineral (1.50 ± 0.48 g/100 g), crude fibre (5.61 ± 0.70 g/100 g), and energy (149.01 ± 7.8 kcal/100 g) content, indicating a nutritionally diverse meal. Mineral analysis showed significant levels of iron (4.9 ± 0.32 mg/100 g) in the Assamese *thali*, with individual dishes contributing varying amounts based on their ingredient composition. The findings emphasized the nutritional value of Traditional Assamese cuisine and its potential to provide a balanced and micronutrient-rich diet.

Keywords: Assamese *thali*, nutritional composition, mineral content, proximate analysis

Introduction

Assam, situated in the northeastern part of India, has a distinct and rich culinary tradition deeply intertwined with its geography, climate, and socio-cultural history. The region was largely self-sustained, abundant in natural resources, and spared from the devastating famines that afflicted many other parts of India during both the medieval and colonial periods ^[1].

Rice formed the staple food and was cultivated widely in two primary forms: ahu (sown rice) and sali (transplanted rice) ^[2]. Boiled rice, known as *bhat*, was consumed in different forms such as *ukhuwa* (brown rice) and *aroi* (white rice), processed using Traditional methods by utilizing a wooden pounder. Various rice varieties such as Bora, Joha, and Komal were central to the Assamese diet, each offering distinct aroma and texture, with Joha rice gaining international recognition for its fragrance and quality ^[1].

Assamese cuisine is known for its mild flavors, minimal use of oil, and limited reliance on spices, reflecting dietary practices suitable for the region's warm and humid climate. The cuisine placed particular emphasis on three core taste profiles: *khar* (alkaline), *tenga* (sour), and *teeta* (bitter), derived from natural ingredients like plantain ashes, citrus fruits, and bitter herbs respectively. *Khar* was especially significant, consumed regularly for its perceived health benefits, while *tenga* dishes, such as *Masor Tenga*, used lemon, tamarind, or *thekera* to create a sour base. Bitter flavors were introduced through ingredients like neem leaves, bitter gourd, and specific regional flowers ^[1] along with Vegetables, pulses, and tubers that formed a large part of the diet. Leafy greens and plants such as *kaath aloo* (hard yam), *mitha aloo* (sweet potato), and *komora* (white gourd) were widely used, along with pulses like *mati dali* (black gram), which was a staple in festive meals ^[2]. Cooking techniques emphasized boiling, steaming, and baking, with minimal use of oil or frying. Bamboo shoots, also played a vital role in Assamese culinary practices.

Modern studies, such as one conducted in Monai Majhi in Jorhat District, continue to reflect the prevalence of Traditional food habits in Assam. The Assamese *thali*, a complete meal presented on a metal plate or banana leaf, encompasses this culinary legacy, offering a balanced mix of flavors, textures, and nutrients [3]. Traditional items included in the Assamese *thali* like *khar*, *Aloo Pitika*, *duck curry*, and *bamboo shoot fry* not only highlight Assam's culinary diversity but also reflect its deep cultural roots [4].

Materials and Methods

Location and period of study

The present study was carried out during the academic year 2023-2025 in the Department of Food Science and Nutrition at the College of Community Science, Assam Agricultural University, Jorhat, 785013, situated in Jorhat district, Assam, India.

Sample Selection

Sample selection was carried out through a survey of 60 restaurants in the Jorhat district of Assam that serve traditional Assamese *thalis*. A purposive sampling method was used to identify restaurants known for maintaining authentic Assamese cooking practices. Data were collected using a structured questionnaire covering the types of dishes included in a *thali*, ingredients used, and methods of preparation. Information was obtained through direct interviews and on-site observations with restaurant owner. Based on the survey, the most commonly served dishes plain rice (*bhat*), lentil dal (*masoor dali*), mashed potato (*aloo pitika*), mustard green fry (*lai xaak bhaji*), brinjal fry (*bengena fry*), and bamboo shoot pickle (*khori*) were selected for nutrient composition analysis.

Preparation of Traditional Assamese *thali*

In the present study, an Assamese *thali* was prepared under controlled laboratory conditions and standardized by selecting the most frequently served dishes and following their traditional cooking methods. Each recipe was standardized in terms of ingredient quantity, cooking time, temperature, and serving portion to ensure uniformity for subsequent laboratory analyses. The *thali* included locally sourced and culturally significant food items: boiled rice,

dal (lentil dal), mashed potato, brinjal (eggplant) fry, bamboo shoot pickle, and mustard green leaf fry. Each dish was cooked using conventional methods such as boiling, frying, and steaming, while minimizing the use of oil and spices to reflect the dietary habits of Assamese communities [4, 5].

Sample Processing

In the present study, all individual dishes were dehydrated using a cabinet dryer set at 50 °C for 12 hours to reduce moisture content and prevent microbial spoilage. After drying, the samples were finely ground using a laboratory grinder into uniform powder and stored in airtight containers at 4 °C in a laboratory-grade refrigerator until further analysis was conducted. This ensured stability of sample and minimized oxidative degradation prior to nutrient testing.

Preparation of Assamese *thali*

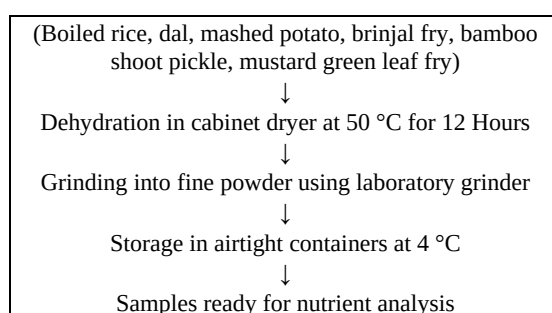


Fig 1: Schematic diagram of sample processing

Nutrient Analysis

The proximate composition was determined as per [6].

Statistical Analysis

For present investigation one-way Anova was employed using three replications in SPSS software

Results

The general description of the recipes of Assamese *thali* is given in table 1.

Table 1: General description of the recipes of Assamese *thali*.

Sl. No.	Local name	Common name (English)	Scientific name	Description of the recipe
1	<i>Bhat</i>	Steamed rice	<i>Oryza sativa</i>	Rinse rice thoroughly, then combine 1 cup rice with 2 cups water in a pot. Cover and cook on low heat until water is absorbed and rice is tender (15-20 min).
2	<i>Masoor dali</i>	Lentil curry	<i>Lens culinaris</i>	Boil washed <i>masoor dal</i> with turmeric, salt, and water until soft. In a separate pan, temper onion and tomato in oil, then mix into the dal and simmer briefly.
3	<i>Aloo pitika</i>	Mashed boiled potato	<i>Solanum tuberosum</i>	Boil potatoes, remove skins, and mash with mustard oil and salt for seasoning.
4	<i>Lai xaak bhaji</i>	Stir-fried mustard greens	<i>Brassica juncea</i>	Chop green mustard green leaves and stir-fry with light seasoning.
5	<i>Bengena fry</i>	Brinjal fry	<i>Solanum melongena</i>	Slice brinjal, marinate with turmeric, chili powder, and salt. Shallow fry in oil until golden and crispy on both sides.
6	<i>Khorisa</i>	Bamboo shoot pickle	<i>Phyllostachys edulis</i>	Boil and sun-dry bamboo shoots. Mix with turmeric, chili powder, garlic, and salt. Store in a clean jar and ferment under sunlight for a few days before use.

Nutrient composition of Assamese *thali*

The proximate composition of the standardized traditional Assamese *thali* and its constituent dishes is presented in

Table 2. Among the individual dishes, brinjal fry (*Bengena fry*) exhibited the highest energy value (216.14±74.97 kcal/100 g), attributed to its higher oil absorption during

frying, whereas stir fried mustard green (*lai xaak bhaji*) had the lowest energy content (80.77 ± 8.42 kcal/100 g). The composite Assamese *thali* showed an intermediate energy value of 149.01 ± 7.80 kcal/100 g.

Carbohydrate content was found to be highest in steamed rice (23.84 ± 6.65 g/100 g), reflecting its starchy nature, while mustard greens (*Lai xaak bhaji*) recorded the lowest carbohydrate content (6.26 ± 2.79 g/100 g). Protein content was highest in masoor dal (8.42 ± 1.31 g/100 g), as expected for a pulse-based dish, and lowest in brinjal fry (1.77 ± 0.51 g/100 g).

Crude fibre content was markedly highest in brinjal fry (12.66 ± 2.73 g/100 g), followed by bamboo shoot pickle (6.45 ± 1.91 g/100 g), whereas steamed rice contained the lowest fibre (0.36 ± 0.14 g/100 g). The total mineral content ranged from (1.76 ± 0.59 g/100 g) in mustard greens to

(0.12 ± 0.0005 g/100 g) in rice, indicating higher mineral density in vegetable-based preparations.

The moisture content was highest in bamboo shoot pickle ($90.12 \pm 1.27\%$), likely due to its fermentation, while brinjal fry had the lowest moisture ($49.16 \pm 15.19\%$), resulting from high-temperature frying. Fat content was maximum in brinjal fry (14.11 ± 3.22 g/100 g) and minimum in steamed rice (0.48 ± 0.22 g/100 g).

Regarding mineral composition, iron content was highest in the composite Assamese *thali* (4.90 ± 0.32 mg), reflecting the combined contribution of pulses and leafy vegetables, while mashed potato (Aloo pitika) recorded the lowest iron value (0.40 ± 0.10 mg). The coefficient of deviation (Cd) indicated moderate variation among samples, particularly for energy and fat content.

Table 2: The nutrient composition of the Assamese *thali*

Sl. No.	Local Name	Common Name	Energy (Kcal)	Carbohydrate (g)	Protein (g)	Crude Fibre (g)	Total Mineral (g)	Moisture (%)	Fat (g/100 g)	Iron (mg)
1	Bhat	Steamed rice	110.22 ± 26.06^a	23.84 ± 6.65^d	2.62 ± 0.50^{ab}	0.36 ± 0.14^a	0.12 ± 0.0005^a	72.56 ± 6.21^{cd}	0.48 ± 0.22^a	1.36 ± 0.41^{bc}
2	Masoor dali	Lentil curry	81.21 ± 19.15^{ab}	12.53 ± 6.32^{abc}	8.42 ± 1.31^{ac}	2.39 ± 1.39^{ab}	0.95 ± 0.13^b	77.51 ± 3.37^d	0.93 ± 0.56^c	2.40 ± 0.85^d
3	Aloo pitika	Mashed boiled potato	89.17 ± 15.09^a	10.64 ± 1.89^{abcd}	2.11 ± 0.69^b	1.45 ± 0.28^a	1.45 ± 0.51^d	79.78 ± 3.90^d	4.23 ± 1.03^c	0.40 ± 0.10^a
4	Bengena fry	Brinjal fry	216.14 ± 74.97^d	20.51 ± 15.16^{cd}	1.77 ± 0.51^a	12.66 ± 2.73^d	1.71 ± 0.23^{ab}	49.16 ± 15.19^{ab}	14.11 ± 3.22^c	0.73 ± 0.15^{ab}
5	Bahoor gaaj	Bamboo shoot pickle	181.77 ± 8.42^{bc}	18.39 ± 6.82^{bcd}	2.95 ± 0.90^a	6.45 ± 1.91^c	1.41 ± 0.58^{bc}	90.12 ± 1.27^{bc}	10.68 ± 4.20^{bc}	1.63 ± 0.50^{cd}
6	Lai xaak bhaji	Stir-fried mustard greens	80.77 ± 8.42^{ab}	6.26 ± 2.79^{ab}	2.62 ± 0.63^c	4.84 ± 1.77^{bc}	1.76 ± 0.59^d	79.48 ± 2.15^d	5.02 ± 1.61^{ab}	1.43 ± 0.47^{cd}
7	Assamese thali	Composite thali (mixed dish)	149.01 ± 7.80^d	10.54 ± 2.85^a	4.99 ± 2.32^d	5.61 ± 0.70^d	1.50 ± 0.48^d	75.54 ± 3.04^a	9.65 ± 0.94^d	4.90 ± 0.32^e
8	Cd		53.16	8.92	1.88	3.003	0.08	10.14	4.29	0.52

Discussion

In the determination of moisture content as depicted from the table 2 was found to be highest in Bamboo Shoot Pickle (*Khorisa*), 90.12 ± 1.27 g/100 g reflects its stew-like, broth composition and lowest in Brinjal Fry, 49.16 ± 15.19 g/100 g due to oil absorption during frying and low water retention. The very high moisture content suggests a stew-like or broth-based composition. Elevated fat and carbohydrate contents contribute to its high caloric value. Moderate levels of protein, minerals, and fibre indicate a diverse nutrient profile, likely due to a mix of root vegetables and oil-based cooking. The nutrient composition of bamboo shoot in the present study is consistent with the findings reported by [7], who comprehensively reviewed the nutritional properties and health potential of bamboo shoots. The high moisture and fibre content, combined with low fat, render bamboo shoots a low-calorie yet nutrient-dense food, supporting their Traditional use as a health-promoting vegetable in many Asian diets. Bamboo shoots' potential as a functional food ingredient with beneficial effects on digestion and metabolic health [8].

In the determination of protein content, it was found to be highest in *masoor dali* (lentil curry), 8.42 ± 1.31 as pulses are inherently richer in plant-based protein. Lowest in Brinjal Fry, 1.77 ± 0.51 vegetables like brinjal contribute minimal protein. The nutrient composition of *masoor dali* in the present study aligns with the findings reported by [9], who reviewed the nutrient profile of lentils (*Lens culinaris Medik*) and noted that cooked lentils typically contain 7.8-9.5 g/100 g of protein, 12-14 g/100 g of carbohydrates, and

moisture content around (75-78 g/100 g). The study also emphasized the presence of dietary fibre (2-4 g/100 g) and low fat content (<1 g/100 g) in boiled lentils, depending on the variety and cooking conditions. These values are in close agreement with the current findings, confirming lentils as a rich source of plant-based protein and fibre with minimal fat [10].

The fat content was found highest Brinjal Fry, 14.11 ± 3.22 due to deep/shallow frying causes heavy oil uptake. Lowest in Steamed Rice (*bhat*), 0.48 ± 0.22 typical of polished white rice with minimal fat content. Studies shows that brinjal-based fried recipes from Assamese cuisine demonstrated fat content ranging from 12 to 16 g/100 g, carbohydrate content between 18 to 22 g/100 g, and energy levels exceeding 200 kcal/100 g depending on oil quantity and preparation style. The significantly high fat and energy values can be attributed to deep or shallow frying practices common in Traditional cooking, where brinjal being a porous vegetable readily absorbs oil during frying. Furthermore, the high crude fibre content reflects the retention of the peel and structural matrix of brinjal post-cooking [11].

Carbohydrate content was highest in Steamed Rice (*bhat*), 23.84 ± 6.65 as rice is a major source of digestible starch and energy. Lowest in *lai xaak bhaji* (mustard greens) at 6.26 ± 2.79 . Leafy greens have minimal carbohydrates. This preparation shows high moisture and mineral content typical of green leafy vegetables. The moderate fat content results from the cooking process, while significant crude fibre supports digestive function. Low carbohydrate and protein levels reflect the low-energy, micronutrient-rich profile of

leafy greens [12]. The high moisture and fibre content in *lai xaak bhaji* can be attributed to the inherent properties of leafy greens and the Traditional cooking methods employed, which typically involve minimal processing and the use of indigenous ingredients [13]. The increase in carbohydrate content are characteristics of boiled rice, which primarily contributes energy through starch. The relatively low levels of protein, fat, fibre, and minerals indicate that Bhat offers limited nutritional diversity, serving primarily as a carbohydrate source in the diet. The nutrient composition values of *bhat* in the present study align with those reported by [14], where cooked white rice revealed moisture content around (68-70 g/100 g), protein (2.0-2.7 g/100 g), fat (0.1-0.5 g/100 g), carbohydrate (22-25 g/100 g), and energy content between (108-113 kcal/100 g). These similarities confirm that boiled rice remains a low-fat, high-carbohydrate staple with minimal protein and fibre, typical of polished white rice [15].

Crude fibre content was found to be highest in brinjal fry at 12.66 ± 2.73 . Fibrous vegetable structure retained after frying. Lowest in steamed rice (*bhat*) at 0.36 ± 0.14 . Polished rice offers negligible fibre. Total minerals was found to highest in Assamese *thali* (composite mixed dish) at 1.50 ± 0.48 as varied ingredients contribute minerals. Lowest in steamed rice (*bhat*) at 0.12 ± 0.0005 since rice is low in mineral density. Energy (kcal/100 g) was found highest in brinjal fry at 216.14 ± 74.97 as high fat increases caloric density. Lowest in *masoor dali* (lentil curry) at 81.21 ± 19.15 as pulses provide protein and fibre but low fat yields a lower energy value. *Aloo pitika* recorded values for moisture, protein, fat, carbohydrate, total mineral, crude fibre, and energy content as (79.78 ± 3.90 g/100 g), (2.11 ± 0.69 g/100 g), (4.23 ± 1.03 g/100 g), (10.64 ± 1.89 g/100 g), (1.45 ± 0.51 g/100 g), (1.45 ± 0.28 g/100 g), and (89.17 ± 15.09 kcal/100 g), respectively. The high moisture content reflected the use of boiled potatoes. Moderate fat levels likely result from the incorporation of mustard oil, while the substantial mineral and fibre content enhances its nutritional quality. However, low protein concentration indicates limited contribution to protein intake [16]. These findings align with the data reported by Das *et al.* (2009), where similar vegetable-based preparations demonstrated moisture content ranging from (64.8 to 89.6 g/100 g), protein content between (1.8 to 5.9 g/100 g), fat content from (0.9 to 8.5 g/100 g), and energy values between (40.9 to 82.8 kcal/100 g). The consistency in these values underscores the Traditional preparation methods of *aloo pitika*, which involve boiling and mashing potatoes with minimal oil and spices, contributing to its moderate energy and nutrient content.

Comparatively Assamese *thali* (composite meal) recorded values for moisture, protein, fat, carbohydrate, total mineral, crude fibre, and energy content as (75.54 ± 3.04 g/100 g), (4.99 ± 2.32 g/100 g), (9.65 ± 0.94 g/100 g), (10.54 ± 2.85 g/100 g), (1.50 ± 0.48 g/100 g), (5.61 ± 0.70 g/100 g), and (149.01 ± 7.8 kcal/100 g), respectively. As a composite meal, the *thali* demonstrates a balanced nutrient distribution. Moderate protein, fat, and carbohydrate levels ensure adequate energy supply, while significant mineral and fibre content suggests a variety of plant-based ingredients contributing to its overall nutritional value. The composite nutrient profile of Assamese *thali* corroborates findings by [17], where mixed Assamese meals recorded moisture around 74-76 g/100 g, protein 4-6 g/100 g, fat 8-10 g/100 g, and energy values ranging from 140-155 kcal/100 g. The fibre

and mineral content reported in this study are consistent with *thali* meals that incorporate pulses, leafy greens, and vegetables, offering a diversified and balanced nutrient intake [18].

Highest iron content was observed in Assamese *thali* (4.90 ± 0.32 mg/100 g), reflecting the combined dietary contributions of rice, lentils, leafy greens, and vegetables. Lowest iron content was found in *aloo pitika* (0.40 ± 0.10 mg/100 g), which is in accordance with the typically low mineral levels of potato-based dishes. Assamese *thali*, a composite meal consisting of rice, lentils, vegetables, and accompaniments, displayed the highest mineral content across all parameters. The elevated iron levels are due to the combined nutritional contributions from diverse food groups included in the meal. The synergistic effect of legumes, leafy greens, and other vegetables enhances the overall mineral density.

Bhat (plain cooked rice) recorded mineral content for iron as (1.36 ± 0.41 mg/100 g). The low iron content reflects the nutritional profile of polished rice, which is inherently low in minerals due to milling and processing losses. This observation is in agreement with [14], who reported similar values for milled rice varieties ranging from 0.2 to 1.5 mg/100 g iron. *Masoor dali* (lentil curry), a lentil-based preparation, exhibited higher mineral content with (2.4 ± 0.85 mg/100 g) iron. Iron levels also reflect the known bioavailable iron in lentils. Similar values have been reported by [19], where red lentils showed iron content ranging from 2.9 to 3.3 mg/100 g and calcium content between 56 to 78 mg/100 g, substantiating the present findings. *Aloo pitika*, a mashed potato dish, contained (0.4 ± 0.1 mg/100 g) iron. These findings are consistent with previous research indicating that potato-based dishes, especially those prepared with minimal seasoning or oil, possess modest mineral content [11, 20]. *Bengena fry* (fried brinjal) recorded value for iron as (0.73 ± 0.15 mg/100 g). Iron content remains moderate but is consistent with published values for cooked solanaceous vegetables [14]. *Khorisa* (bamboo shoot) a seasonal mixed vegetable preparation, showed iron value (1.63 ± 0.50 mg/100 g). *Lai xaak bhaji* (mustard green leaf fry) prepared from mustard greens, exhibited high mineral content with (1.43 ± 0.47 mg/100 g) iron.

Conclusion

The present study depicts the culinary traditions and dietary practices of Assam, highlighting the influence of geography, climate, and socio-cultural factors on the Traditional Assamese *thali*. Assamese cuisine is known for its mild flavors, minimal use of oil and spices, and emphasis on three core taste profiles: *khar* (alkaline), *tenga* (sour), and *teeta* (bitter). Rice formed the staple food of Assam along with the vegetables, pulses, and tubers which played a significant role in the diet of the Assamese People. The nutrient composition of various dishes in an Assamese *thali*, that comprised of *bhat*, *masoor dali*, *aloo pitika*, *lai xaak bhaji*, and *khorisa*, was analyzed which thereby revealed a balanced distribution of macronutrients and micronutrients present in the Assamese *thali*.

Acknowledgement

The authors sincerely acknowledge the Department of Food Science and Nutrition, Assam Agricultural University, Jorhat, for providing laboratory facilities and support throughout the research work.

References

1. Saikia A. Food habits in pre-colonial Assam. *Int J Humanit Soc Sci Invention*. 2013 Jun;2(6):1-5.
2. Hunter WW. A statistical account of Assam. London: Trübner & Company; 1879.
3. Hoque A, Taufique M. Mouth-watering traditional cuisines of India: a study of cultural geography. *Open Learn*. 2019;2:34-45.
4. Rane MS. Visual appetite. *Des Thoughts*. 2009;11:19.
5. Sarma D. Food, culture and society in relation to the Assamese people with special reference to Jorhat. *Skylines Anthropol*. 2024;4(1):55-75.
6. AOAC International. Official methods of analysis of AOAC International. 18th ed. Gaithersburg (MD): Association of Official Analytical Chemists; 2000.
7. Chongtham N, Bisht MS, Haorongbam S. Nutritional properties of bamboo shoots: potential and prospects for utilization as a health food. *Compr Rev Food Sci Food Saf*. 2011;10(3):153-168.
8. Mulatu Y, Bahiru T, Kidane B, Getahun A, Belay A. Proximate and mineral composition of indigenous bamboo shoots of Ethiopia. *Greener J Agric Sci*. 2019;9(2):215-221.
9. Dhull SB, Kinabo J, Uebersax MA. Nutrient profile and effect of processing methods on the composition and functional properties of lentils (*Lens culinaris* Medik): a review. *Legume Sci*. 2023 Mar;5(1):e156.
10. Wang N, Hatcher DW, Toews R, Gawalko EJ. Influence of cooking and dehulling on nutritional composition of several varieties of lentils (*Lens culinaris*). *LWT Food Sci Technol*. 2009;42(4):842-848.
11. Das P, Devi LP, Gogoi M. Nutrient composition of some regional recipes of Assam, India. *Stud Ethno-Med*. 2009;3(2):111-117.
12. Youssef MK, El-Newihi AM, Omar SM, Ahmed ZS. Assessment of proximate chemical composition, nutritional status, fatty acid composition and antioxidants of curcumin (*Zingiberaceae*) and mustard seeds powders (*Brassicaceae*). [Journal name, year, volume, pages not available].
13. Mohammed NK, Binti Halim NF, Meor Hussin AS. Composition changes of eggplant fruits (*Solanum melongena* L.) after different cooking treatments. *Tikrit J Agric Sci*. 2024 Dec 1;24(4):92-104.
14. Gopalan C, Rama Sastri BV, Balasubramanian SC. Nutritive value of Indian foods. Hyderabad: National Institute of Nutrition, Indian Council of Medical Research; 2007.
15. Verma DK, Srivastav PP. Proximate composition, mineral content and fatty acids analyses of aromatic and non-aromatic Indian rice. *Rice Sci*. 2017 Jan 1;24(1):21-31.
16. Ramasawmy G, Goburdhun D, Ruggoo A. Effects of different preparation technologies on proximate composition and calorie content of potato products. *Sci Technol Res J*. 1999;4:1-6.
17. Das P, Neog P, Laishram PD, Gogoi M. Nutrient composition of some cereals and pulses based recipes of Assam, India. *J Hum Ecol*. 2005 Apr 1;17(4):237-246.
18. Prasad NN, Siddalingaswamy M, Parameswariah PM, Radhakrishna K, Rao RV, Viswanathan KR, *et al*. Proximate and mineral composition of some processed traditional and popular Indian dishes. *Food Chem*. 2000;68(1):87-94.
19. Indian Council of Medical Research-National Institute of Nutrition (ICMR-NIN). Indian food composition tables. Hyderabad: ICMR-NIN; 2017.
20. Das S, Devi R, Gogoi M. Nutrient composition of some regional recipes of Assam, India. *Indian J Tradit Knowl*. 2009;8(1):80-85.