

## MOUTH-WATERING RECIPE DAL-BAATI-CHURMA OF RAJASTHANI CUISINE FOLLOWS MAILLARD REACTION IN CULINARY

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### ABSTRACT

Dal baati churma is the most popular dish in Rajasthani cuisine. It is made up of three components of baati, dal, and churma. Dal is lentils, baati is a baked wheat ball, and churma is powdered sweetened cereal. Churma is a popular delicacy mostly served with baatis and dal. It is coarsely ground wheat crushed and cooked with ghee and sugar. Traditionally it is made by mashing up wheat flour baatis or left over rotis in ghee and jaggery. Dal baati is a popular Rajasthani dish consisting of baati (hard, baked wheat bread) and dal (a lentil-based curry). It is often served with churma (a sweet powdered cereal) and is a staple in Rajasthani cuisine.

Rajasthani cuisine is known for its rich, spicy, and diverse flavours, deeply rooted in the region's history and arid climate. The cuisine utilizes a variety of ingredients like gram flour, corn, barley, millet, and dairy products, often incorporating techniques like sun-drying and pickling due to water scarcity. Popular dish include Dal Baati Churma.

Use of Ghee: A lot of ghee (clarified butter) is used in many dishes, adding richness and flavour.

Dal Baati Churma: A classic combination of crispy baatis (baked wheat balls), spicy dal (lentil curry), and sweet churma (a powdered, sweetened cereal).

Gatte ki Sabzi: Dumplings (gatte) made from gram flour cooked in a yogurt-based gravy.

Bajre ki Roti: Flatbread made from pearl millet, often eaten with ghee or buttermilk.

Besan (Gram Flour) Dishes: Various dishes like Besan Halwa and Besan ki Chakki are made from gram flour.

Sweet Treats: Rajasthani cuisine also boasts a range of sweets like Ghevar, Imarti, Malpua, Mawa Kachori, and Balushahi.

Impact of Climate and Geography: The arid climate and scarcity of water have shaped the cuisine, leading to the use of sun-dried and pickled ingredients and a reliance on grains like bajra (pearl millet) and maize.

**KEYWORDS:** dal, baati, churma, gatta, bajra.

## INTRODUCTION

**Origin of Baati:** The story of dal baati begins with the baati, a hard, unleavened bread made from wheat flour. It's said that during the time of **Bappa Rawal**, founder of the Mewar kingdom, Rajput soldiers would prepare baati by burying dough balls in the sand to bake in the sun while they were on the battlefield according to The Better India.



**Figure-1: Rajasthan geography & Bappa Rawal: the founder of Mewar Kingdom.**

**Origin of Dal:** The combination of baati with dal is thought to have become popular later, possibly when traders from the Gupta Empire settled in Mewar. Panchmel dal, a mix of five lentils, became a favourite accompaniment to baati according to The Better India.

**Origin of Churma:** Churma, the sweet component of the dish, is believed to have originated by accident when a cook poured sugarcane juice into some baatis. This resulted in a softer, sweeter baati, which eventually led to the creation of churma according to The Better India.

**Evolution:** Over time, the simple wartime baati evolved into the beloved Dal Baati Churma, a dish now enjoyed throughout Rajasthan and beyond, according to Krishna Dal Baati Restro, Udaipur. Dal Baati Churma is a traditional Indian dish, popular in Rajasthan, Madhya Pradesh, and other parts of North India. It consists of three main components: dal (lentils), baati (hard, baked wheat rolls), and churma (a sweet, powdered cereal). The dish is known for its rich, savory, and sweet flavors, making it a popular and satisfying meal. Dal baati churma is the most popular dish in Rajasthani cuisine. It is made up of three components of baati, dal, and churma. Dal is lentils, baati is a baked wheat ball, and churma is powdered sweetened cereal. Churma is a popular delicacy mostly served with baatis and dal. It is coarsely ground wheat crushed and cooked with ghee and sugar. Traditionally it is made by mashing up wheat flour baatis or left over rotis in ghee and jaggery.



**Figure-2: Delicious Dal-Baati.**

Dal Baati, a popular Rajasthani dish, is believed to have originated during the time of Bappa Rawal, the founder of the Mewar kingdom. It's said that Rajput soldiers would bury dough balls (baati) in sand to bake under the sun as a convenient wartime meal. Over time, this evolved into the combination of Dal (lentils), Baati, and Churma (a sweet dish) that is known today.

**Dal:** This is typically a mix of lentils like tuvar dal, chana dal, and mung dal, cooked with spices and sometimes a flavorful tempering.

**Baati:** These are hard, round balls made from wheat flour, ghee, and water, then baked until golden brown. They are sometimes cooked in a tandoor (clay oven) or even buried in hot sand, giving them a unique smoky flavor. Baati gets its color from the Maillard reaction and caramelization that occurs during baking or frying. These chemical reactions, which involve sugars and amino acids, produce a range of flavorful compounds and the characteristic golden-brown hues. The ghee or oil used can also contribute to the color development.

**Maillard Reaction:** This reaction happens when proteins and sugars in the dough are heated. It creates numerous flavor and color compounds, resulting in a browning effect.

**Caramelization:** Sugars in the dough, even those naturally present, can also caramelize when heated, contributing to the browning.



**Figure-3: Ghee.**

**Fat (Ghee/Oil):** Ghee or oil used during baking or frying can further enhance the browning and contribute to the overall colour and flavour.

**Baking Time and Temperature:** The duration and temperature at which the baati is cooked directly influence the extent of browning. Longer baking or frying at higher temperatures will lead to more intense colours.

**Dal Baati Churma:** In essence, the golden-brown colour of baati is a result of the complex interplay of these chemical reactions and the cooking process itself.

**Churma:** This is a sweet component made by crushing the baatis and mixing them with ghee, sugar, and sometimes dry fruits. Delightful sweetness and texture to the meal. Churma is a popular Rajasthani, Bihari, Uttar Pradesh, Haryanvi, and Awadhi delicacy from India. In Punjab, the dish is called churi. It is coarsely ground wheat, crushed and cooked with ghee and sugar. Churma, a popular Indian sweet, is typically made from coarsely ground wheat flour (or sometimes bajra or semolina), ghee, and sugar or jaggery. It's often enjoyed as part of the Dal Baati Churma dish or as a standalone sweet.



**Figure-4: Mouth-watering Churma.**

**Wheat Flour:** This is the most common base for churma.

**Ghee:** Clarified butter adds richness and flavour.

**Sugar or Jaggery:** Either granulated sugar or jaggery (unrefined cane sugar) is used to sweeten the churma.

**Optional additions:** Dry fruits like almonds and pistachios, cardamom powder, and sometimes desiccated coconut are often added for extra flavour and texture. Churma, while a delicious and calorie-rich dish, is generally considered a treat rather than a health food. It's typically made with ghee (clarified butter), jaggery (unrefined sugar), and either wheat flour or crushed rotis. While the ingredients offer some benefits, such as energy from jaggery and healthy fats from ghee, churma is high in calories and can contribute to weight gain if consumed in large quantities.

**Energy Source:** Jaggery and ghee provide a good source of quick energy, which is why churma was traditionally favoured for manual labourers and athletes.

**Vitamins and Minerals:** Depending on the ingredients (e.g., bajra roti), churma can contain some vitamins and minerals.

**Good Fats:** Ghee contains healthy fatty acids, which are important for various bodily functions.

**High in Calories:** The combination of ghee and jaggery makes churma a high-calorie food.

**Not Ideal for Weight Management:** Due to its high calorie content, churma is not recommended for those trying to lose weight.



**Figure-5: Pistachio, Cardamom and Jaggery.**

**Can be high in Sugar:** Jaggery, while a less refined sugar, is still sugar and should be consumed in moderation.

**Overall:** Churma can be enjoyed as part of a balanced diet, especially for those with high energy needs or during festive occasions. However, it's best to consume it in moderation and be mindful of the calorie and sugar content. For those with specific dietary needs or health concerns, consulting with a healthcare professional or dietitian is recommended. The process often involves baking or frying the wheat flour, then grinding it into a coarse powder and mixing it with the other ingredients. Dal Baati Churma is a hearty and flavorful dish that offers a mix of textures and tastes, making it a beloved culinary experience. Dal Baati is comprising Dal (lentils) and Baati (hard wheat rolls). It is popular in other part of Madhya Pradesh also. Dal is prepared using Tuvaar Dal, Chana Dal (prepared by removing skin of split chickpeas), Mung dal. The pulses or lentils are cooked together after being soaked in water for a few hours.

**Tourism and Globalization:** With the rise of tourism and globalization, Dal, Baati Churma has gained popularity beyond Rajasthan, becoming a beloved dish in Indian restaurants worldwide. Its unique flavours and cultural significance make it a must-try for food enthusiasts seeking an authentic taste of India.



**Figure-6: Panchamel [mixture of 5 dals].**

**Evolution into Dal Baati Churma:** Over time, the dish evolved from simple baked baati to the combination of dal (lentils) and churma (a sweet dish). The churma is said to have originated from an accidental discovery of a royal chef who poured sugarcane juice into the baati dough.

**Gatte** (singular: gatta) are nothing but small dumplings made of a spiced, semi-soft dough of gram flour or besan.



**Figure-7: Gatta kadhi.**

Besan or gram flour is a pulse flour made from Chana dal or chickpea flour (split Bengal gram) or brown/kaala chana, a chickpea. It is a staple ingredient in the cuisines of the Indian subcontinent. Rajasthani Gatta curry or Gatte ki subzi is a very popular Rajasthani vegetarian dish made from besan atta (Bengal flour or chickpea flour). Dumplings made from gram flour and dry spices are steamed and cooked in a spicy and tangy yoghurt based sauce.

## CONCLUSION

Dal baati churma is a traditional dish from the state of Rajasthan. It is associated with the festivals of *Makar Sankranti* and *Diwali* in the Dhundhand region. It is also prepared on special occasions like marriage ceremonies and housewarming. Dal baati is eaten with churma popularly in regions of Rajasthan and Haryana. Churma is a sweet dish made of coarsely grounded wheat flour, bajra (millet) flour, or semolina (suji). It is made by grinding the fire-baked or fried dough balls and mixing them with ghee, powdered sugar or jaggery and dry fruits. Information regarding the origins of the dish is scarce: however, it has long been a part of cuisines from the western region of India, i.e., Rajasthan, Haryana, and parts of Gujarat. Baati made of unsalted wheat, ghee and camel milk was first mentioned during the time of Bappa Rawal—the founder of the kingdom of Mewar in Rajasthan. They were known as a nomadic warrior tribe before they settled into the tapestry of a kingdom and got Chittor in form of dowry from Maan Mori, Baati was the Guhilot's official wartime meal.

Baati, a traditional dish, is said to have originated with soldiers who would break the dough into chunks and bury them under thin layers of sand to bake under the sun. According to anecdotal accounts, upon their return, soldiers would find perfectly baked roundels, which were then dunked in ghee. On occasion, curd or buttermilk might also have been added. Initially, Baati was paired with ghee and curd, but over time, Dal and Choorma became additional components of the meal. Some anthropologists suggest that at a grassroots level, Baati was still commonly paired with ghee and buttermilk or curd made from camel or goat milk, while the combination of Dal and Baati was more common among the upper caste. This shift may have been influenced by the presence of traders in Mewar or by culinary practices from the Gupta period, during which Panchmael Dal was considered a delicacy. These connections are largely speculative, and the extent of their historical accuracy remains uncertain. The inclusion of Choorma, now regarded as an integral

part of the meal, is often attributed to the House of Mewar. Folklore holds that Choorma was discovered when a cook accidentally poured sugarcane juice into the Baati during wartime. Other stories suggest that homemakers soaked the Baatis in sugar or jaggery water to preserve them for their husbands, which eventually evolved into Choorma. These origins are also anecdotal, and there is no definitive evidence to confirm the precise development of Choorma or its association with Dal Baati.

**REFERENCES**

[https://en.wikipedia.org/wiki/Category:Rajasthani\\_cuisine](https://en.wikipedia.org/wiki/Category:Rajasthani_cuisine)