

## Nutritional Health Benefits of Pearl Millet

Sintu Malik<sup>1\*</sup>, Meenu<sup>2</sup>, Pooja<sup>3</sup>

<sup>1</sup>Krishi Vigyan Kendra, Bhiwani,  
CCSHAU, Hisar, Haryana  
(127 021), India

<sup>2</sup>DES Entomology, Krishi Vigyan  
Kendra, Bhiwani-127021  
(Haryana), CCSHAU, Hisar

<sup>3</sup>Sri Balaji University,  
Pune, MH, 411036



\*Corresponding Author  
**Sintu Malik\***

**Available online at**  
<http://sunshineagriculture.vitalbiotech.org/>

### Article History

Received: 23.09.2023

Revised: 7.10.2023

Accepted: 9.10.2023

This article is published under the  
terms of the [Creative Commons](https://creativecommons.org/licenses/by/4.0/)  
[Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/).

### INTRODUCTION

Bajra or Pearl millet (*Pennisetum glaucum*) belongs to the Poaceae family which ranks sixth most important cereal grain in the world. It is one of the oldest and major cultivated millet which is well known for its nutritional importance. Since prehistoric times, it has been growing in African and Indian subcontinents. It is majorly grown in Gujarat, Maharashtra, Rajasthan, Haryana, and Uttar Pradesh in India.

Pearl millet is a highly nutritious and easily digestible cereal grain. It is known as bajra in Hindi, Bengali, Punjabi, Urdu and Oriya. This grain is cultivated on a very large scale in India. In different regions of the world, it is known as African millet or spiny millet. According to archaeo-botanical researchers, it was first cultivated in the Hallur district of Karnataka and the most popular dish “Bajra roti” is made from pearl millet.

The main producer of Bajra in India is Rajasthan, as this crop is usually grown in summer and can withstand adverse conditions such as drought, and low soil fertility. It also yields well under low salinity and high pH conditions.

Although Bajra has been a staple food for thousands of years, it has become very popular in recent years due to its high nutritional value, as it comprises carbohydrates, essential amino acids, antioxidants, multivitamins such as thiamine, riboflavin, folic acid, niacin, beta-carotene, and minerals such as iron, phosphorus, magnesium, and zinc. Due to the similarity in texture with brown rice, it can be cooked like rice. Pearl Millet is used for making various baking products like bread, cookies, muffins, chapatis, and biscuits by grinding the dried bajra grains into flour which has a nutty taste with grey colour. Bajra flour is usually used in winter as it keeps the body warm.

## **Health Benefits**

### ***Good for Diabetic and Healthy Heart people***

Diabetes is a chronic disease caused due to sudden spikes in sugar levels in human beings. Dietary habits help in controlling blood glucose levels. Pearl millet comprises easy and slow digestible carbohydrates that stabilizes the blood sugar level for a long period which makes Pearl Millet a healthy food option for diabetic. Due to the presence of high fibre content and low cholesterol properties in Bajra grain, it is healthy for heart patients.

### ***Celiac Disease and Gluten Intolerance***

Wheat is the most profusely consumed cereal grain in the world with rice but due to the presence of gluten protein; it causes gastrointestinal problems like bloating, constipation, and bowel syndrome. So, patients having celiac disease can go for a pearl millet-based diet as it is free from gluten and easily consumable. The Pearl Millet grain is low in calories but composed of healthy nutrients that help in weight loss and regulating blood sugar levels.

### ***Rich in Antioxidants***

Pearl millets are a power source of antioxidants and their consumption can keep us protected from several chronic diseases such as cancer, arthritis, cardiovascular disease, diabetes Parkinson's disease, and Alzheimer's disease and it also aids in wound healing.

### ***Augmented with Vital Nutrients***

It contains mainly vitamin B but is also rich in other minerals like iron, magnesium, calcium, phosphorus, manganese, potassium, copper, zinc, and chromium. It is known to have the highest content of potassium, calcium, and iron among other cereals. Pearl millet is the only cereal that contains significant amounts of chromium. It contains the highest amount of folic acid among all cereals, which makes it a healthy option for pregnant women.

### ***Polycystic Ovarian Syndrome***

PCOS is a common and major problem among women of all age groups. It is a hormonal disorder that affects women's health leading to an abnormal menstrual cycle and unwanted

hair growth on the body. To overcome this disease, medication, losing weight and a strict diet plan can be helpful. Bajra is full of iron and fiber content. It cuts down the visceral fat around the abdominal region which helps in the proper regulation of the menstrual cycle and also prevents other related disorders.

### ***Ameliorative for People with Frequent Acidity and Stomach Ulcers***

Pearl millet is one of the few foods that limit the formation of ulcers and discomfort in the stomach due to bowel movements.

### ***Prevents Constipation***

Due to the presence of insoluble fibers in bajra, it is consumed to promote good gut health *i.e.* consumption of pearl millets keeps constipation at a distance.

### ***Provides Protein to Vegetarians***

Vegetarian people cannot consume the desired amount of protein with meat and fish products. Pearl millet products are needed here, but they do not contain sufficient amounts of lysine. Bajra flour becomes complete when combined with legumes. Hence, pearl millet is consumed together with lysine-rich foods such as beans, cheese, tofu, or eggs, making the whole diet a complete source of protein.

### ***Lowers Blood Pressure and Cholesterol***

Bajra is known as potassium-rich millet, which is considered good for high blood pressure. Eating potassium-rich foods flushes sodium out of the body, which lowers blood pressure. It contains an adequate amount of good fats, which is desirable for patients with high cholesterol.

### ***Makes Bone Stronger***

The high phosphorus content of bajra helps strengthen bones. This phosphorus-rich millet, together with calcium, strengthens bones, prevents joint pain and prevents the risk of chronic diseases such as osteoporosis.

### ***Nutritious Baby Food***

Pearl millets are easy-to-digest food that is much loved by little ones, making it suitable as a healthy baby food during the weaning period and even later. It is also a healthy choice for pregnant women and nursing mothers due to its iron and folic acid content.

***Reduces the Risk of Colon Cancers***

It reduces the risk of colon cancer by making the pH of the stomach alkaline.

***Other Benefits***

Pearl Millet is very good for breastfeeding mothers as it helps in increasing milk production. Also, it contains the amount of calcium three times more than milk. Thus, Pearl millet consumption is beneficial for both the mother and the newborn.

***Side Effects***

Although Pearl millet is one of the most consumed foods in our country, it has a large number of side effects. There are a few things to keep in mind before adding pearl millet to your diet it is not recommended for people with a thyroid disorder, as it can further affect the function of the thyroid gland and result in various metabolic disorders. If Bajra is not

cooked properly, the oxalates present in it can lead to kidney stones and the formation of phytic acid, which interferes with the absorption of food in the intestine.

**CONCLUSION**

Pearl Millet is a type of cereal grown in summer, mainly in the Indian state of Rajasthan and in some African countries. This ancient millet has gained great popularity in recent years due to its nutritional value, such as being gluten-free and containing various vitamins, minerals, and other nutrients. Bajra is extremely helpful in controlling sudden spikes in blood sugar, preventing chronic diseases, and for a healthy heart. The consumption of bajra in winter strengthens lung power due to its anti-inflammatory properties that can facilitate breathing.