

Proso Millet – An Ancient Grain

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INTRODUCTION

Proso millet, scientifically known as *Panicum miliaceum*, is a warm-season grain crop that belongs to the Poaceae family, which includes various grasses. Proso millet has been cultivated for thousands of years and is known for its ability to grow well in harsh and dry environments, making it an important crop in regions with challenging climatic conditions. It is one of the oldest crop cultivated by humankind (Boom corn, common millet and hog corn). It is a C4 photosynthetic type with low transpiration ratio.

Proso millet is reported to have been domesticated in Central and East Asia about 10,000 years ago. It migrated from China to the Black Sea region of Europe by 5000 BC. And in 1875 German-Russian immigrants brought them to North America.

Vernacular Names of Proso Millet

S.No.	Language	Name
1.	Hindi	Barre
2.	Sanskrit	China
3.	Kannada	Baragu
4.	Tamil	Panivaragu
5.	Telugu	Varigulu, Varagalu
6.	Malayalam	Panivaragu
7.	Marathi	Vari
8.	Gujarati	Cheno
9.	Bengali	Cheena
10.	Punjabi	Cheena

Source: ICAR – INDIAN INSTITUTE OF MILLETS RESEARCH (IIMR), 2017

Key Characteristics and Aspects of Proso millet

Growth and Appearance: Proso millet is an annual plant that typically reaches a height of around 20 to 100 cm. It has a bushy growth habit with slender stems and narrow leaves. The inflorescence, or flowering part, of the plant consists of a panicle—a branched structure containing spikelets where the grains develop.

Grains: The grains of proso millet are small and round, measuring about 2 to 3 millimeters in diameter. They can vary in color, ranging from white, yellow, and red to brown, depending on the variety. The grains are covered by a tough outer husk, which needs to be removed before consumption.

Cultivation: Proso millet is well-suited to a wide range of growing conditions, making it adaptable to various climates and soil types. It is often cultivated in arid and semi-arid regions where other crops might struggle due to water scarcity. This adaptability has contributed to its popularity in regions with challenging agricultural conditions.

Uses and Consumption: Proso millet can be used in a variety of ways. It can be cooked and consumed as a whole grain, similar to rice or quinoa. It can also be milled into flour and used for making bread, porridge, and other baked goods. In some cultures, proso millet is used to make alcoholic beverages as well.

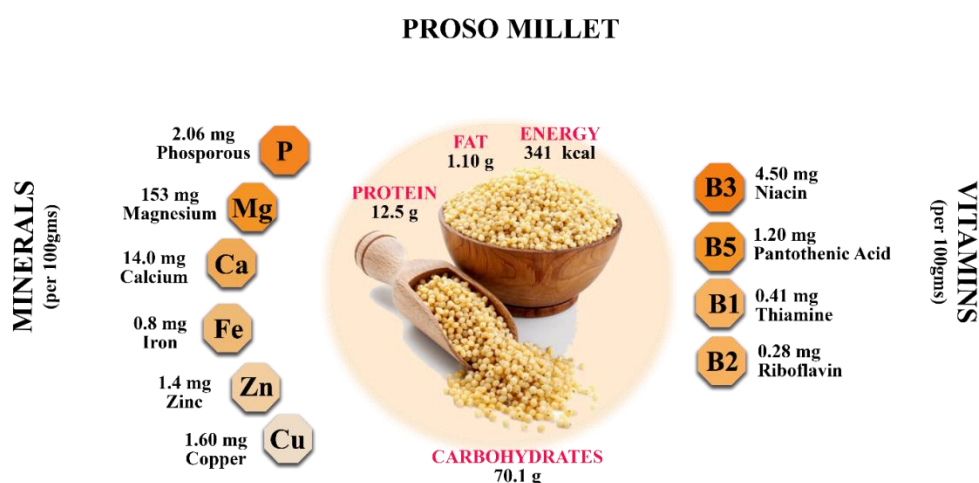
Health Benefits: Due to its nutritional profile, proso millet offers several health benefits. Its high fiber content can aid in digestion and promote a feeling of fullness. The B vitamins present in millet are essential for energy metabolism and overall cellular function. Additionally, its gluten-free nature makes it an excellent option for those with celiac disease or gluten intolerance.

Cultural Significance: Proso millet has a long history of cultivation and consumption in various parts of the world, including Asia, Europe, and North America. It has served as a staple food for many communities, particularly in regions where other major cereal crops like wheat and rice might not grow well.

Overall, proso millet is a versatile and nutritious cereal crop that continues to be an important food source in different parts of the world, particularly in regions facing agricultural challenges and water scarcity.

Nutritional Value

Proso millet has the highest protein content compared to all other millets. Also, it is a nutritious grain that is a good source of carbohydrates, dietary fiber, and various vitamins and minerals, including B vitamins (especially niacin and thiamine) and minerals like iron and magnesium. It is also gluten-free, making it a suitable option for individuals with gluten sensitivities.



Source: Indian Food Composition Tables, NIN, 2017

Health Benefits of Proso Millet

- Proso millet contains high amounts of lecithin. It helps in myelin fiber repair and regeneration.
- Atherosclerosis is a condition that affects the body's arteries, a condition where plaque builds up in the artery walls, causing the arteries to become stiff and narrow. As the wall thickens, the artery gradually narrows, gradually reducing the blood supply to the corresponding body part. Therefore, the good fats present in proso millet can increase HDL levels in the body and lower blood glucose and insulin levels.
- The high fiber and antioxidants found in proso millet contribute to the prevention of cardiovascular disease and cancer.
- Consuming proso millet in their daily diet lowers cholesterol in the body, as well as increases adiponectin and HDL levels.

CONCLUSION

Proso millet is a valuable crop with nutritional, environmental and cultural benefits. Its ability to thrive in difficult growing conditions, coupled with its nutritional value, makes it a good choice for promoting sustainable agriculture, addressing food security and diverse food intake. As global agriculture faces the challenges of climate change and

resource scarcity, proso millet may emerge as an important part of the solution.

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