

# OPPORTUNITIES FOR BAJRA PRODUCTS IN BAZAAR



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## INTRODUCTION

*Bajra* is one of the important millet crops in India. Since ancient times it's been a staple food for many people, mainly belonging to the country's semi-arid regions. Like many other millets, bajra too requires very less water and other inputs with short crop duration; it produces nutritive grains for food and fodders for farm animals. The greatness of this crop is its adaptability and survival in difficult agro-climatic conditions where maize and jowar fail to provide profitable returns. Bajra is the local name for Pearl Millet (*Pennisetum glaucum*). After rice and wheat, it is the 3rd most widely cultivated food crop in our country. Rajasthan, Maharashtra, Gujarat, Karnataka, Uttar Pradesh, Tamil Nadu, and Andhra Pradesh are the highest producers.

## NUTRITIONAL VALUE OF PEARL MILLET

The nutritive value of pearl millet is superior to cereals like rice, wheat, and maize because it has a good amount of calcium, iron, zinc, lipids, and amino acids, including lysine, tryptophan, and threonine, as well as omega-9, omega-6, and omega-3 fatty acids. Also, it is gluten-free, low in flavonoids, and low glycemic index, so a wide range of consumers, including celiac patients and people suffering from lifestyle disorders, can use this conveniently.

Nutrient	Per 100g
Energy	347.99 kcal
Carbohydrate	61.78 gm
Protein	10.96 gm
Total Fat	5.43 gm
Calcium	27.35 mg
Phosphorus (P)	289 mg
Iron (Fe)	6.42 mg
Total Fiber	11.49 gm
Omega - 3 Fats	140 mg
Zinc (Zn)	2.76 mg
Total Pholates (Vitamin B9)	36.11 mcg
Vitamin A	4.71 mcg
Sodium (Na)	4.11 mg
Potassium (K)	365 mg
Linoleic Acid	1844 mg

## USES OF PEARL MILLET

Only the developing nations of Asia and Africa grow pearl millet as a food crop. Pearl millet can be used similarly to brown rice because of its similar texture. In just 15-20 minutes, whole pearl millet grains can be cooked like rice after being soaked in water for a couple of hours. A cup of dry pearl millet expands to three cups when cooked more than any other grain. Pearl millet grain that has been cooked will be light and fluffy. Roti, bhakri, and porridge or gruel are traditional culinary products made from pearl millet. Bread, cakes, muffins, cookies, and biscuits are made with a mixture of pearl millet flour and wheat flour. However, the usage of bajra in the bakery and snacks industry is very much under-exploited.

## CHALLENGES NEED TO TACKLE

People who consume pearl millet as staple food have also shifted to more rice and wheat products in recent decades. Pearl millet has lost its extensive inclusion in the diet by consumers due to inconsistent supply and change in the lifestyle, predominantly in city areas. One more important thing hindering the use of pearl millet is the easy availability of cereal-based processed foods and ready-to-eat and cook ingredients that save time, convenient for changed life styles and helps in quick preparation, which made them prefer that over bajra. A shelf life issue also exists with bajra flour because of its lipid profile. The flour has a shelf-life of maximum of 10 days, post that time bitterness and rancid flavour are seen mainly because of degradation of the fats. Difficulty in cooking, grittiness and the presence of anti-nutritional factors pose more challenges. Throughout the world, extensive research has been in place over a few decades to find a suitable way to encounter the above mentioned challenges.



## OPPORTUNITIES FOR PEARL MILLET

Institutes like National Agricultural Research System (NARS) and International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) took the important responsibility of developing hybrid and high-yielding varieties and popularise them across the farming communities. Bajra yield has increased by 65%, and around half of the bajra cultivating area is covered by hybrid bajra varieties when compared to the late 1990s. Despite the fact that pearl millet production is increasing, there are very less efforts to utilise that in the preparation of ready-to-eat food items. Cereals that have been enlarged or puffed have been processed for many years. Puffed, popped, or expanded grains and legumes have been prepared using high temperature-short time procedures. The starch is gelatinised during puffing, resulting in ready-to-eat foods, frequently used as snacks, breakfast foods, or as the major ingredient in snack recipes. Popped cereals and millets are crunchy, crisp meals with a pleasant smell that are highly regarded for their lightness and adjustability in mixes. Recently, there has been a lot of interest in pearl millet processing and product diversification. A considerable reduction in phytic acid, a key anti-nutritional component of pearl millet, was observed in the nutritional evaluation of the popped grain, which was proven to be an excellent snack. Popped pearl millet was proven to offer the same commercial potential as popped rice or maize, particularly regarding its nutritional advantages. Utilising popped pearl millet to make ready-to-eat foods like snack bars may encourage greater consumption and improve customers' nutritional security. Pearl millet grain has the potential to use outside of traditional food production,

including the production of processed foods, new cuisines, and poultry and dairy feed. Thus, one strategy to raise the demand for pearl millet and boost farmers' incomes is commercialising alternative foods, feeds, and industrial goods.

## PEARL MILLET PRODUCTS

There is enormous scope for commercial conventional or well-known Indian cuisine mixtures that are ready to eat (RTE) or simple to prepare. These foods have been shown to be microbiologically secure and organoleptically acceptable for durations ranging from three months to a year. The popularity of dry mixes of numerous classic Indian dishes has spread globally. Instant kadhi, instant khichadi, instant ravaidli, instant veg pulav, and instant sooji upma mix are some of the Indian dishes. Rapid urbanisation, industrialisation, and ensuing changes in people's food patterns are some important contributing causes to their popularity.



Pearl millet foods, including dosa, pongal, cutlets, methi rice, sev, thattai, payasam, pakoda, and halva have been developed. IIMR has also developed recipes for a wide range of food products using millet and offered value addition.

# GOVERNMENT INITIATIVES

The Indian government has planned to introduce millets including pearl millet, in the children's mid-day meal under PM POSHAN Scheme. In the regions where millet is part of local food habits. They are also carrying out cooking competitions for school Cook-cum-Helpers to encourage recipes based on millet. Also, in the backdrop of the International Year of Millets, the government of India intends to make it simpler for exporters, farmers, and merchants to participate in 16 international trade expos and Buyer-Seller Meets to boost the export of Indian millets (BSMs). To promote branding and marketing in the food processing industries sector, the government of India started different schemes. Like the PMFME initiative, where groupings of FPOs, SHGs, cooperatives, or an SPV of micro food processing firms would receive assistance for marketing and branding. Then under Production Linked Incentive (PLI) Schemewill encourage the development of world-class food manufacturing companies, support Indian food brands, expand off-farm employment possibilities, assure fair prices for farm goods, and enhance farmer income.

# CONCLUSION

Pearl millet is grown on over 50% of the world's millet-planting areas. In India, the present production of pearl millet is around 10 MMT per year. Due to the nutritional superiority and climate-resilient nature of millets over other crops, it has been given the tag of "nutricereals" by the Ministry of Agriculture and Farmers Welfare, Government of India. Despite the numerous potential benefits, this crop had limited commercial demand. But now, it's time for millets. The huge demand for millet products in local and even global markets is expected. So ,its a great oppurtunity for bajra products too in baazar.

