

Millets of India and Traditional Millets Recipes

H.H. Khan, Amit Tomar, A.K. Mishra, S.P. Singh, Prachi Patel & R.P. Singh

ICAR-Krishi Vigyan Kendra, Gajraula, Amroha (Directorate of Extension) Sardar Vallabhbhai Patel University of Agriculture & Technology, Meerut-250110, U.P.

ARTICLE ID: 62

Introduction:

Recent times have seen lifestyle diseases like diabetes and obesity, with their accompanying complications, reaching almost epidemic levels. Even becoming the leading cause of death in some high-income countries. One main cause for its aggravation is the food we consume.

- > Time then to take a good hard look our daily diet.
- ▶ Is this what yours looks like? Salt, sugar and fat.

Of course, you know the foods that are good for you. If you don't here's the lowdown on the needs. Many of these nutrients are found in whole grains, which essentially refer to grains that have not been depleted by over-polishing. But, here's the thing. There's more to whole grain than wheat, rice and corn. The humble millet, for instance, is a whole grain. An excellent source of nutrition, available freely, right under our very noses, yet largely ignored. Millet, though an integral part of our diet for many generations, has been all but forgotten till recently.

Health Benefits of Millets:

"The black millet, the double kernelled, millet pink-sprouted and white."This lyrical description from an old Chinese folk song goes on to describe millet, the treasure trove of nutrition, as lucky grains sent down to us. Millet can be traced as far back as the Stone Age and in fact, many types of millet have even been found in Mohen-jo-daro and Harappan archaeological sites. Interestingly it was this group of cereals and not rice that was a staple in Indian, Chinese Neolithic and Korean diets. There are about 6,000 varieties of millet throughout the world, and since they are not fussy about soil and water, they are a major source of energy and protein for more than a billion people in arid and semi-arid regions. Unlike our over-cultivated wheat-rice-corn which need a whole lot more pampering to



survive. Think *Jolada roti, ragi mudde, bajra khichidi, nachnidosa, thinaipongal* – sound familiar? These are all food that we've heard of and perhaps grown up on. Yet millets, like many traditional foods have been sorely neglected. Pity! Because they are highly nutritious, non-glutinous and non acid forming grains. Properties which make them soothing and easy to digest. In fact it is a food often cooked during fasting in India. Plus they are super versatile so you can go all out and make a huge variety of delicious dishes with them. Scroll down if you want to know about millets health benefits and how to use them in your daily cooking.

- The staple food of ancient India was millet, not rice.
- High in fiber, rich in essential amino acids, vitamins and minerals, naturally gluten-free, alkaline, non-allergenic, they are thus easily digestible.
- A low glycemic index makes them an ideal rice substitute, good for cholesterol, diabetes and weight loss.

Good for those with diabetes, obesity or other lifestyle diseases.Glycemic Index is a scale that ranks carbohydrates by how much they raise the blood glucose levels compared to a reference food. Glycemic Index is based on the quality and not the quantity of carbohydrates. According to traditional medicine, millet support digestion, improve appetite, nourish *prana* and blood deficiencies, increase lactation, harmonize the stomach, and calm the sleep. The Green Revolution encouraged and subsidized the production of rice and wheat, which influenced of the West, were refined to look better. Unfortunately, excess refining removed the nutritious bran and left the easy-to-digest kernel which converts easily to starch and sugar. Millets on the other hand, contains high amounts of dietary fibre which help lower blood glucose levels and improve insulin response. Fibre also regulates the speed of digestion, helps absorption of nutrients and fills you up, so you don't feel hungry so often.

Since fibre helps clean the intestinal tract of toxins, it's great for digestive disorders too. For more on fibre, read fat? Apart from these obvious benefits, these super grains are a great source of several vitamins and minerals, including phosphorus, important for energy production and storage, magnesium which enhances nutrient delivery and increases insulin sensitivity. Though every type has a different nutrient profile, most are high in protein, contain minerals such as calcium, iron and zinc and are rich in vitamin B6, niacin and folic



acid. Lignans in millet is thought to protect us against breast cancer and cardio-vascular diseases.

English	Hindi	Kannada	Tamil	Telugu	Malayalam	Marathi	Punjabi	Gujarati	Bengali	Oriya
Pearl Millet	Bajra	Sajje	Kambu	Sajjalu	Kambam	Bajri	Bajra	Bajri	Bajra	Bajra
Foxtail Millet	Kangni, Kakum, Rala	Navane	Thinai	Korra	Thina	Kang, Rala	Kangni	Kang	Kaon	Kanghu, Kangam, Kora
Kodo Millet	Koden, Kodra	Harka	Varagu	Arikelu, Arika	Koovaragu	Kodra	Kodra	Gajro	Kodo	Kodua
Little Millet	Kutki, Shavan	Saame, Save	Saamai	Sama, Samalu	Chama	Sava, Halvi, Vari	Swank	Kuri	Sama	Suan
Barnyard Millet	Jhangora, Sanwa	Oodalu	Kuthiravali	Oodalu	Kavadapullu	_	Swank	-	Shyama	Khira
Sorghum	Jowar	Jola	Cholam	Jola	Cholam	Jowari, Jondhala	Jowar	Jowari, Juar	Jowar	Juara
Finger Millet	Nachani, Mundua Mandika, Marwah	Ragi	Kelvaragu	Ragula	Panji Pullu	Nachni	Mandhuka, Mandhal	Nagli, Bavto	Marwa	Mandia

Table-1: Types of Millets.

Pearl Millet or Bajra:

Grown and consumed extensively in the African and Indian subcontinent from ancient times, pearl millet is rich in phosphorus which helps cells store energy, and many other vital minerals. Often cooked in winter, pearl brings warmth to the body and increases energy levels.



Traditional pearl millet recipes: Include kambankoozh, an old-time porridge from Tamil Nadu and bhakri roti, eaten

ecross India, from Maharashtra to Gujarat and Karnataka.

Finger Millet or Ragi:

Has the highest calcium content of any millet and grows easily in arid areas. Often referred to as an antidiabetic grain, its high fiber content also checks constipation, cholesterol and intestinal cancer.

Traditional finger millet recipes: Ragi balls or ragi mudde as they're locally known, are a staple in Karnataka. Ragi malt, or porridge being highly nutritious

and easy-to-digest is a common weaning food.

Note: Both bajra and ragi contain goitrogens that could aggravate the thyroid gland, if taken too many times in a day.

^{age}338



Foxtail Millet or Navane:

Possibly the oldest cultivated millet, it is thought to have originated in Northern China, where it is highly regarded as a healing food for postpartum and digestive health. Foxtail millet has a rich mineral content, and is specially high in iron. A popular fasting food in some parts of India, it is interestingly called *xiaomi*, or little rice



in Chinese. Traditional foxtail millet recipes: Idli, upma, payasam, biryani. Commonly



made into porridge in the northern parts of China.

Little Millet, Samai or Kutki:

The smallest of the millet family, little millet is yet another reliable catch crop grown across India. It is very easy to cook and is often simply used as rice and in fact, can be used in any recipe that demands rice. Higher iron content gives it an edge over rice specially for those with anaemia.

Traditional little millet recipes: Substitute rice in *pulau, payasam, khichadi, biryani,* in fact any rice recipe with little millet.

Sorghum Or Jowar/Jola:

Sorghum is widely cultivated and consumed across many states in India and rotis made with johar are much easier to digest. It is rich in potassium, phosphorus, calcium, iron and zinc.



Traditional jowar recipes: Used extensively across India to make rotis and porridge.

BARNYARD MILLET:

Barnyard millet grows faster than you can say *samvatke chawal*. One of the highest fibre and iron content amongst fellow millets, it has a low carb content is a good source of B-complex vitamins.

Traditional barnyard millet recipes: Used to make different types of porridges. Slightly sticky when cooked, samvatke chawal





is popular during navratras, when they are used to make upma, khichdi and pulav during

fasts.



proso Millet or Baragu/Varagu:

Though its protein content is similar to that of wheat, it is considered a far higher quality protein source because it is not only rich in essential amino acids (leucine, isoleucine and methionine), it is also gluten-free. About as old as foxtail, proso is one of the more delicious

and temperate millet varieties.

Traditional proso millet recipes: Upma, pulau/biriyani and porridge.

Kodo Millet or Araka:

As with other varieties, kodo was domesticated several thousands of years ago. It has a high amount of lecithin and is excellent for strengthening the nervous system. It is also rich in B vitamins, especially niacin, B6 and folic acid, as well as the minerals such as calcium, iron, potassium, magnesium and zinc.



Traditional kodo millet recipes: Upma, idli, pulau/biriyani and porridge.

How to Use Millets in Your Daily Diet:

There's no need to give up the food you love. Just replace one or two of the ingredients with millets and you'll end up eating a tasty, balanced diet that's nutritious too. Here are some of the things you can do:

- Use millets, instead of rice: Replace rice with millet at just one meal and feel the difference. Try a half and half millet and rice mix to start withMakedosa batter at home? Use millets instead of rice. Or just try it with a half and half millet and rice mix
- 2. Healthier pulau: Use lots of veggies, and millet instead of rice
- 3. Sweet ideas: Make millet payasam with palm sugar or jaggery
- 4. Breakfast: Try millet instead of oats. Cook and top with raisins, brown sugar or nuts
- 5. Make a burger: Combine with cooked beans or peas to make vegetarian "burgers. Use your usual seasoning, shape into patties and bake or pan-fry.

 $^{\text{age}}340$



6. Soups and stews: Rinse millet and throw in a handful into your crock pot. Keep for approx. 30 minutes for it to absorb the liquid and become tender. Or cook separately and add.

Support sustainable agriculture:

Millets are environmentally friendly, and by consuming them, we encourage farmers in arid and semi arid areas to grow crops best suited for those regions. Interestingly, many farmers practice '*akkadi*', a mixed cropping system that increases on-farm biodiversity and sustainability. This method increases farm productivity by improving soil fertility and making plants stronger, thus enabling them to fight off pests and diseases.

