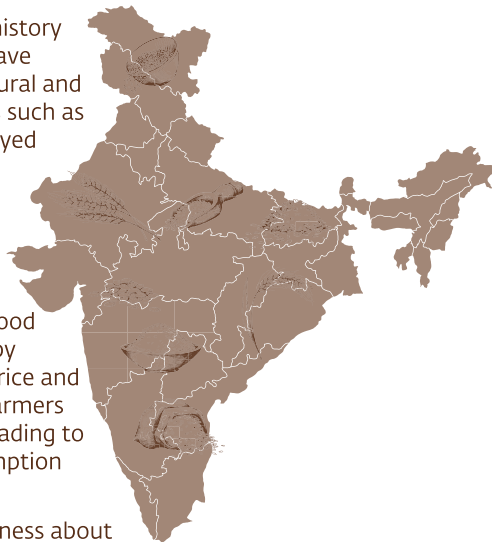


## Restoring India's Nutritional Heritage

In India, millets have a rich and diverse history dating back to prehistoric times. They have long been an integral part of India's cultural and culinary heritage, with traditional dishes such as bajra khichdi and ragi mudde being enjoyed for generations.

However, over the last fifty years the consumption of millets in India has significantly declined. This has been largely due to previous government policies aimed at ensuring the nation's food security during times of food shortage, by subsidising the cultivation of high-yield rice and wheat varieties. These policies caused farmers to move away from millet cultivation, leading to a corresponding shift in people's consumption patterns.

Today in India, there is a growing awareness about the benefits of traditional millets, and many people are rediscovering these ancient grains.



## Good for the Soil, Good for your Body

Millets can grow in poor quality soil and will improve the health of that soil. Their deep, fibrous root systems break up and aerate compacted soil, improving soil structure and increasing organic content.

Millets are also incredibly water efficient, eliminating the need for costly and environmentally damaging dams and irrigation systems. With the effects of climate change now upon us, and the increasing unpredictability of rainfall, millets are becoming a crucial grain for the global community.

## Growing with Millets - Farmer Benefits

Millets can be a lucrative crop for Indian farmers. These tough crops can thrive in harsh conditions, including areas with limited water and poor soil, without the use of chemical fertilisers and pesticides. This means lower input costs for the farmer, together with greater resilience against crop failure.

In addition, millets have a shorter growing season of only three months, compared to the four to six months required for rice and wheat. This short timeline allows farmers to cultivate multiple crops in a single year.

Farmers can benefit from higher market prices for millets as global demand for them increases in a world increasingly focused on health and environmental concerns.

## The Nutrient Powerhouse

Millets are highly nutritious, having the power to support the human body in many different ways. They are a huge support to one's general health and provide one of the most efficient fuels for the body, resulting in higher energy levels from less food.

Millets have the highest level of protein among all the grains, and are rich in vitamins, minerals and micronutrients. They are generally slow digesting foods, which means they raise one's blood sugar slowly and gradually, helping control diabetes.

Millets are abundant in antioxidants, helping to lower the risk of heart disease, strokes and cancer, and boosting one's immunity.

While being naturally gluten free, millets are high in soluble and insoluble fibre. This helps regulate the movement of food through the digestive tract, keeping the colon hydrated helping prevent constipation. Eating millets helps to keep one feeling full for longer periods, which can support in avoiding snacks between meals and assist with managing one's weight.

## Meet the Millets

### Finger Millet

Finger millet, commonly known as madua, kezhvaragu, ragi, ragulu and panjipullu, is mostly grown and consumed in southern India, especially in the rural areas. Finger millet is considered to be one of the most nutritious cereals, being rich in protein, fibre, calcium, and iron. This makes it an excellent option for weaning and a great choice for growing children. Finger millet has amazing body cooling properties which makes it an ideal food to consume during the hot summer months. It can be enjoyed in many forms such as roti, kanji and dosa.

### Finger Millet Ladoo



- 1 cup roasted finger millet flour
- ½ cup ghee
- ½ cup soft palm sugar
- ¼ cup fresh grated coconut
- 2 tbsp black sesame (optional)
- 2 tbsp groundnuts
- 8-10 almonds or cashew nuts
- ¼ tsp cardamom powder

- In a shallow pan and low heat, dry roast black sesame, groundnuts and grated fresh coconut separately. Keep them aside to cool.
- Remove the skin from the groundnuts.
- Add a tsp of ghee to the pan and toast the almonds for a minute or two and keep them aside.
- Crush the almonds and groundnuts coarsely
- Add the finger millet flour to the pan along with 3 tbsp of ghee and roast for 15-20 minutes. Add more ghee if needed.
- Add the roasted almonds, groundnuts, coconut and black sesame and keep stirring.
- Add the palm sugar and cardamom powder. Stir for another 2 minutes.
- Take off the heat and let it cool.
- Apply ghee on your palm, then take 3-4 tbsp of the mixture and roll into a ladoo.
- If the mixture is too dry you can add a little more ghee.

## Kodo Millet

Kodo millet, commonly known as kodo, varagu, araka, arikelu and koovaragu is extensively cultivated in the tribal areas of Madhya Pradesh and Chhattisgarh. Known for its ability to grow in areas with limited water and very poor soil conditions, Kodo millet is one of the hardiest crops in India. This humble grain is especially rich in B vitamins as well as calcium, iron, potassium, magnesium and zinc. It is high in antioxidants and is also a good source of lecithin, helping strengthen the nervous system. Having a unique nutty flavour, kodo millet is a great substitute for rice or wheat and is traditionally used to make khichdi or kheer.

## Kodo Millet and Spinach Soup



- ¼ cup kodo millet
- 2 tsp butter
- ½ tsp cumin
- ½ tsp ginger grated
- 1 potato chopped
- 1 carrot chopped
- ½ bunch spinach
- salt and pepper to taste

- Dry roast the millet for a few minutes. Cool and pulse it in a mixer grinder. Soak in water for an hour.
- Heat butter in a pressure cooker and saute cumin and ginger.
- Add chopped vegetables and saute for a few minutes.
- Add drained millet and 1 cup water and close the cooker.
- Once pressure builds, simmer for 10 minutes. Remove from heat and open the cooker after pressure settles. Add spinach and keep covered for 15 minutes or until it has come to room temperature.
- Blend and strain. Adjust consistency with water or milk.
- Heat the soup, adding salt and pepper to taste, and serve hot.

## Foxtail millet

Foxtail millet, commonly known as kangni, thinai, navane, korralu and thina, is one of the most ancient millets in the world, and was an important source of food for early human civilizations. In fact, foxtail millet is referred to in some of the oldest texts in the Yajurveda. Grown in semi-arid regions, it has a short growing season, requiring minimal water and can be planted when it's too late to plant other crops. High in iron content, it helps promote good cardiac health and helps control blood sugar and cholesterol levels. Foxtail millet is often used to make popular southern Indian dishes, especially sweets like laddoo or payasam.

- 1 cup foxtail millet
- 2 tbsp ghee or oil
- 1 tsp mustard seeds
- 1 tsp cumin seeds

## Foxtail Millet Upma



- 1 big capsicum, finely chopped
- 3-4 chopped tomatoes
- 1 tbsp ginger, grated
- 1 carrot, finely chopped
- ½ cup peas, fresh or frozen
- ½ cup green beans, finely chopped
- 2 cups water
- salt to taste
- ¼ cup fresh coriander, chopped

- Dry roast the millets over a low flame for 4-5 mins and then soak in water for 2-3 hours.
- Rinse the millet in several changes of water until the water runs clear.
- In a saucepan, heat the ghee or oil over medium heat. Add the mustard seeds and cumin seeds and cook until they begin to sizzle.
- Add the chopped tomatoes, chopped capsicum, ginger and cook for 2-3 minutes.
- Add the carrot, peas, and green beans and cook covered for an additional 2-3 minutes, or until the vegetables are slightly softened.
- Add the foxtail millet to the saucepan and stir it in with the vegetables and salt.
- Add the water and bring to a boil. Reduce the heat to low and simmer, covered, for 15-20 minutes, or until the water is absorbed and the millet is tender.
- Stir in the chopped coriander leaves.
- Serve the upma hot, garnished with additional coriander if desired.

## Barnyard millet

Barnyard Millet, commonly known as saavan, kuthiraivali, oodalu, udalu and kavadapullu, is commonly grown in the hilly regions of Uttarakhand. Traditionally grown among trees and other crops as part of agroforestry based farming systems, barnyard millet flourishes in the cool climate and is an important source of nutrition for the rural communities. Popular as a “fasting food” in Indian culture, it is especially high in fibre and iron, making it an excellent source of energy, while promoting cardiovascular health and boosting immunity levels. This versatile grain can be used to make dishes such as daal, and kheer, and in many countries is also used as birdseed.

## Barnyard Millet Tikki



- ¼ cup barnyard millet
- 1 potato boiled and mashed
- 2 small carrots grated
- 1 capsicum finely chopped
- ¼ cup green peas
- ¼ cup cabbage grated
- 3 tsp oil
- ¼ tsp ginger grated
- ½ tsp chilli powder
- 1 big pinch garam masala

- 2-3 tbsp mint leaves finely chopped
  - salt and pepper to taste
  - lemon juice
  - oil to shallow fry
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- Dry roast barnyard millet and soak for an hour. Drain.
  - Bring 1 cup of water to a boil and add millet. Cook over a low flame until soft (approx 12-15 mins). Drain excess water and allow to cool.
  - Heat oil and add grated ginger. Saute for a minute and then add the vegetables. Cook covered over a slow flame until soft.
  - Add chilli powder, garam masala and salt. Mix to blend well.
  - Add potatoes and mint and mix well.
  - Add salt and pepper to taste, along with lemon juice.
  - Mix all and shape into tikkis when cool.
  - Fry tikkis in a shallow pan with oil until brown and crispy.

## Little millet

Little Millet, commonly known as kutki, samai, saame, samulu and chama, was domesticated in the Eastern Ghats of India, and was once a major part of the tribal people's diet there. It withstands both drought and water logging and can be grown in poor quality soil. Little millet has the smallest grains compared to other millets, but is packed with nutrients, being rich in antioxidants as well as being an excellent source of protein and fibre. Little millet has a mild, nutty flavour and can be used as a substitute for rice to make pulao or curd rice.

## Little Millet Kheer



- $\frac{1}{4}$  cup little millet
  - 1 litre milk
  - $\frac{1}{4}$  cup (or to taste) sugar or jaggery
  - 3 tbsp dry fruits and nuts
  - 2 tsp ghee
  - few strands saffron
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- Dry roast the little millet for a few minutes and soak in warm water for an hour.
  - Bring milk to a boil and simmer.
  - Add drained millet and cook over low flame for about 15 to 20 minutes until millet is soft.
  - Add sugar along with saffron and simmer for 10 minutes, stirring continuously.
  - Heat ghee and roast the dried fruits and nuts.
  - Add to kheer and serve hot.

## Pearl millet

Pearl Millet, commonly known as bajra, kambu, sajje, sajjalu and kambam, is the most drought and heat tolerant of all millets. It is a staple grain in Rajasthan and the rest of northwestern India, and is the sixth most produced grain in the world. Pearl millet has the largest grain of all the millets, and is a rich source of protein and fibre, as well as potassium and magnesium, contributing to a healthy heart. As a naturally alkaline food, it may also help to relieve acidity. Pearl millet is known for its heat generating properties, making it an ideal food for the winter season, and is often used to make porridge, and flatbreads.

## Bajra Porridge



- 3 tbsp bajra porridge mix
- 2 cups water
- 1 cup thick buttermilk
- salt to taste
- coriander leaves

- Mix the bajra porridge mix with  $\frac{1}{4}$  cup of lukewarm water.
- Heat 2 cups of water and bring to a simmer.
- Add the bajra mix, stirring continuously, and cook over a medium flame for 10 minutes or until shiny.
- Remove from flame and set aside to cool for an hour (or overnight if possible).
- Mix with buttermilk, salt and extra cold water to adjust the consistency as desired.
- Garnish with coriander or mint and serve at room temperature.