

Small Millets and the Reawakened 25

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THE NAME “SMALL MILLET” ENCOMPASSES AT LEAST 6 DIFFERENT SPECIES OF MILLETS: finger millet, proso millet, foxtail millet, little millet, barnyard millet and Kodo millet. These crops are still relatively common in the countryside of India. They are highly nutritious, require little water, have a small carbon footprint and a diversity of uses, from beverages to edible cutlery. Small millets have long been neglected in favor of more financially lucrative crops, but their nutritional profile and versatility are now bringing them to center stage. The real protagonists of this rediscovery are farmers in India, especially women. Supported by local NGOs who provide technical and entrepreneurial skills, Indian farmers are using small millets to foster rural development fight the malnutrition affecting their villages.



Eleusine coracana - Finger Millet



MINOR MILLETS

Eleusine Coracana - Finger Millet
Panicum Miliaceum - Proso Millet
Setaria Italica - Foxtail Millet
Panicum Sumatrense - Little Millet
Echinochloa Esculenta - Barnyard Millet
Paspalum Scrobiculatum - Kodo Millet

Origin: Africa and Asia
 Grown across Semi Arid Tropics of Africa and Asia
 High in protein, essential fatty acids, vitamins and minerals

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BOTANY

The name millets refers to a variety of grasses with small seeds that are grown throughout the world as crops for animal fodder and human consumption, especially across Asia and Africa. While all millets are members of the Poaceae, grass, family, there are a number of subfamilies and different genres that all hold millet species. As a plant that uses C4 photosynthesis, millet is adapted to grow in hot summer months with little water.

CULINARY USE

Millets have been a staple in human diets for over 7,000 years, especially in semi arid tropical regions of Africa and Asia. For example, for hundreds of years in western India sorghum and millet flour have been used to hand roll the local staple, the flat bread roti. Millet porridge, sweet and savory, is a popular dish in Germany, Russia and China. Millet is popped and mixed with a sweet syrup or honey to form bars, a popular snack in Osaka, Japan. Millet is fermented and/or distilled to create a number of beers and alcohols in India and Nepal. Millet is often added to seed mixes in bread or crackers. Millet consumption is growing in popularity around the world as a gluten-free alternative to wheat.

NUTRITION AND MEDICINAL USE

Millet is a nutritious grain high in dietary fiber and gluten-free. Millets contain 7-12g protein per 100g of raw grain, depending on the millet species, placing them in a similar protein range as wheat and significantly higher than rice or maize. In addition to significant protein and carbohydrate levels, millets contain important essential fatty acids. Millets are a good source of multiple types of Vitamin Bs, as well as Iron, Magnesium, Manganese and Phosphorus. Polyphenols in millets are known to promote a low glycaemic index, helping reduce the risk of heart disease, diabetes and high blood pressure.

AGRICULTURE

Millet is prized for its ability to grow in hot and dry conditions with a short growing season. The vast majority (97%) of millet production takes place in the semi arid tropics of India, Mali, Nigeria and Niger. Millets are adaptable and resilient to drought and poor soils. The reliability of millet in poor growing conditions compared to other grains has made millet a major crop in Saharan countries of western Africa and drought stricken regions of southeast Asia. Despite these adaptations, if provided good soil health and moisture, millet can produce 2-4 times more grain per hectare. A few African countries collaborate on the breeding and sharing of improved breeds of millet to enhance yields. Millets are increasingly important crops as climate change increases marginal land, and the need to grow nutritious crops in poor conditions grows.

HISTORY

Millet is a broad definition, encompassing many different small seeded grass crops within the Poaceae family. Due to this breadth, millets evolved all over the world from wild ancestors such as barnyard grass and panic grass into species used for human consumption. Different species are native to different regions throughout Africa and Asia, allowing adaptation to place and wide distribution. Millets have characterized the human diet for over 7,000 years and there is evidence to suggest consumption of the grain over 10,000 years ago in Asia. The crop may have been a cause of the initial transition to stationary farming societies. Paleoethnobotanists, archaeologists who research diet and crop usage, have found evidence to suggest that the cultivation and consumption of millet shadowed that of rice in prehistoric diets of China and Korea. Millets had made their way into European consumption and agricultural production by 5000 B.C.E.

RESEARCH

Millet cultivation in marginal and drought stricken land, as well as development of varieties with increased adaptation and yield, is an important and expanding area of research as the knowledge of millet as a resilient and nutritious crop grows.

CUISINE

- [Millets: health benefits and recipes- Times of India](#)
- [Millet Recipes- Indian Institute of Millet Research](#)
- [Millet Recipes- A Couple Cooks](#)
- [12 Vegetarian Millet Recipes- Naturally Ella](#)

SOURCING

- [Bob's Red Mill Millet](#)
- [Shastha Millets](#)

COMMUNITY RESOURCES

- [Indian Institute of Millets Research](#)
- [The Millet Project- Berkeley Food Institute](#)
- [Agriculture and Food Security- Millets: a solution to agrarian and nutritional challenges](#)
- [Millet History and Botany](#)

