



Millets: A Nutritious and Sustainable Grain for a Healthier Lifestyle

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Abstract

Millets are a family of small-seeded grasses which have been grown and eaten for a very long time. They are abundant in vital nutrients including protein, fibre, vitamins, and minerals and have a number of health advantages including lowering blood sugar, lowering cholesterol, and improving heart health. Millets are a low-water, low-fertilizer crop that can grow in unfavourable soil and is sustainable and ecologically benign. Millets have received very little attention in contemporary agricultural and food systems despite the many advantages they offer. However, initiatives like the International Year of Millets and government-backed programmes are being used to encourage their production and consumption. To encourage healthy eating habits, it's critical to understand the benefits of millet and include them in our diets.

Introduction

For thousands of years, people have grown and eaten millets, a variety of small-seeded grasses. They continue to be a significant crop in many poor nations, where they were previously a staple diet. Because they are a good source of protein, fibre, vitamins, and minerals, millets are renowned for their nutritional benefits. They provide a host of health advantages, including as increased heart health, decreased levels of glucose in the blood, and lower cholesterol levels. Millets are also a low-water, low-fertilizer crop that can grow in unfavourable soil and is ecologically benign. Millets have received very little attention in contemporary agricultural and food systems despite the many advantages they offer.

Types of Millets

There are many types of millets, here are some of the most common ones:

- 1. Pearl Millet (Bajra):** A common millet type found in India and Africa is called pearl millet. It is a nourishing grain since it is high in protein, fibre, and minerals. Alcoholic drinks, porridge, and flatbreads are frequently made from pearl millet.
- 2. Foxtail Millet (Kangni):** Small-grained millet with a high protein, iron, and fibre content is called foxtail millet. Making porridge, upma and pulao with it is a widespread practise in China and India.
- 3. Finger Millet (Ragi):** The nutrient-dense millet known as finger millet is high in calcium, iron, and fibre. It is frequently used to produce flatbreads, pancakes, and porridge.
- 4. Little Millet (Kutki):** Little Millet is a small-grained millet that is rich in protein, fiber, and iron. It is commonly used in India to make porridge, khichdi, and upma.
- 5. Barnyard Millet (Sanwa):** A millet that is devoid of gluten and is high in minerals, fibre, and protein is called barnyard millet. It is frequently used in India to produce khichdi, upma, and porridge.

6. **Kodo Millet (Kodra):** A nutrient-dense millet that is high in protein, fibre, and minerals is kodo millet. In India, it is frequently used to prepare pulao, upma, and porridge.
7. **Proso Millet (Chena):** Proso Millet is a protein-, fibre-, and antioxidant-rich millet that resists drought. It is frequently employed to create bread, soups, and porridge.

These are but a handful of the several varieties of millets that are offered. Millet is a diverse and nutrient-dense grain option since each variety has an own nutritional profile and flavour.

Nutritional Value of Millets

Millets are a fantastic food source. Protein, fibre, vitamins, and minerals are all abundant in them. They are an excellent source of vital amino acids and have a higher protein content than wheat and rice. Additionally, they contain a lot of dietary fibre, which promotes intestinal regularity and avoids constipation. Vitamins like the B-complex, E, and K, as well as minerals like calcium, iron, magnesium, and zinc, are all present in millets. Iron is especially abundant in millets and is necessary for the production of haemoglobin, the molecule that transports oxygen in the blood.

Table 1: The nutritional composition of different types of millets.

Type of millet	Calories per 100g	Protein (g)	Carbohydrates (g)	Fat (g)	Fiber (g)
Foxtail Millet	350	11.1	71.4	4.2	6.8
Pearl Millet	377	11.5	72.8	5.6	8.2
Finger Millet	337	7.2	72.5	1.4	3.5
Kodo Millet	328	8.2	65.1	3.7	9.1
Little Millet	340	7.9	68.1	4.3	7.6
Barnyard Millet	301	6.5	65.3	2.4	10.1

Health Benefits of Millets

Millets provide a number of health advantages. Because they possess a low glycemic index, their glucose is released into the circulation gradually and steadily as a result of their delayed digestion and absorption. Because of this, millets are a perfect diet for those who have diabetes or are at high risk of getting it. Millets can assist enhance glycemic management, lessen insulin resistance, and lower blood sugar levels, according to studies.

Millets are beneficial to heart health as well. They include a lot of fibre, which lowers blood cholesterol levels. Additionally, millets are a rich source of magnesium, which is necessary for keeping the heart healthy.

Millets are advantageous for controlling weight as well. They include a lot of fibre, which keeps us fuller for longer. In turn, this lowers calorie consumption, resulting in weight reduction. Millets are a great diet for those trying to lose weight since they are packed with a variety of nutrients that are crucial for general health.

The small-seeded grasses known as millets have been farmed for thousands of years and are prized for their many health advantages. Some of the main advantages of millets for health include:

1. **Nutrients rich:** Millets are a rich source of fibre, vitamins, minerals, and protein. They are especially abundant in B vitamins, including niacin, thiamine, and riboflavin, which are crucial for producing energy and maintaining healthy nervous system function.
2. **Low level of Cholesterol:** It has been demonstrated that millets reduce blood cholesterol levels. Millets' high fibre content and the availability of phytochemicals like lignans and phytosterols, which decrease cholesterol, both work together to minimise the absorption of cholesterol from diet.

3. Helps with Digestion: Millets are a good source of insoluble fiber, which helps to promote healthy digestion by adding bulk to the stool and preventing constipation. Millets also contain resistant starch, which acts as a prebiotic and helps to feed the beneficial bacteria in the gut.

4. Helps Control Blood Sugar levels: Millets have a low glycemic index, which means they release glucose into the bloodstream at a slower rate than high-glycemic index foods. This helps to prevent spikes in blood sugar levels, making millets an ideal food for people with diabetes.

5. Heart Health: Millets are a good source of magnesium, which is important for heart health. Magnesium helps to regulate the heartbeat and blood pressure, and studies have shown that a diet rich in magnesium can reduce the risk of heart disease.

6. Gluten-free: Millets are naturally gluten-free, making them an ideal food for people with celiac disease or gluten intolerance.

7. Weight Loss: Millets are low in calories and high in fiber, making them an ideal food for weight loss. The high fiber content in millets helps to promote feelings of fullness and reduce appetite, leading to a lower calorie intake.

In summary, millets are a nutritious and healthy food that offer numerous health benefits. Incorporating millets into your diet can help to improve digestion, control blood sugar, lower cholesterol, promote heart health, and aid in weight loss.

Environmental Benefits of Millets

Millets are a sustainable and environmentally friendly crop. They require minimal water and can grow in poor soil, making them an ideal crop for farmers in areas affected by drought or soil degradation. Millets are also naturally pest-resistant, reducing the need for pesticides and other chemicals. This makes them an ideal crop for organic farming. Millets are also a low-input crop, meaning they require minimal fertilizers and other inputs.

Culinary Uses of Millets: Millets have a mild, nutty flavor, and they can be easily incorporated into a range of recipes. They can be used to make a variety of dishes, including bread, porridge, pancakes, and even beer. In India, millets are used to make a range of traditional dishes, including dosa, idli, and bhakri. Millets can also be used to make desserts, including puddings, kheer, and halwa.

Promoting the Use of Millets: Despite their numerous benefits, millets have been largely overlooked in modern agriculture and food systems. However, efforts are being made to promote their cultivation and consumption. The United Nations has declared 2023 the International Year of Millets, with the aim of raising awareness of their importance and promoting their use. The Indian government has also launched several initiatives to promote the cultivation and consumption of millets.

Conclusion

In conclusion, millets are an important crop that has been cultivated and consumed for thousands of years. They are rich in essential nutrients such as protein, fiber, vitamins, and minerals, making them an ideal addition to a healthy diet. Millets also offer numerous health benefits, including lower blood glucose levels, reduced cholesterol levels, and improved heart health. In addition, millets are a sustainable and environmentally friendly crop that can thrive in poor soil and require minimal water and fertilizers. Despite their numerous benefits, millets have been largely overlooked in modern agriculture and food systems. However, efforts are being made to promote their cultivation and consumption, with initiatives such as the International Year of Millets and government-supported programs. It is important to recognize the value of millets and to incorporate them into our diets to promote good health and sustainable food systems.