

MILLETS: RESERVOIR OF NUTRIENTS

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Introduction:

Millets are known as one of the most important cereal grains. They are an important source of important nutrients like niacin, magnesium, phosphorus, manganese, iron and potassium. They contain high amounts of protein, fiber, essential amino acid methionine, lecithin, and vitamin E. Millets are Jowar (Sorghum), Sama (Little millet), Ragi (Finger millet), Korra (Foxtail millet) and Variga (Proso millet). All the millets are three to five times higher in their nutrition content when compared to nutritional content of widely used rice and wheat. Wheat and rice provide food security while millets give many securities like food, health, nutrition, livelihood, animal feed etc, making millets as yield of agricultural security. Millets are having nutritional and health benefits. They also help in managing health problems like diabetes mellitus, hyperlipidemia, etc.



Nutraceutical Properties of Millets

Nutraceuticals are medicinal foods that play an important role in maintaining well-being, enhancing health, modulating immunity and thereby preventing as well as treating specific diseases. Due of various health benefits of millets, these can be used in functional foods as nutraceuticals for prevention and treatment of lifestyle diseases. Hence, they are also known as ‘nutricereals’. Millets have nutraceutical properties in the form of antioxidants which prevent deterioration of human health. These are found to be rich sources of

phytochemicals such as phenolic acids, flavonoids, catechins, phytic acid, and phytosterols. Researchers have reported that the presence of dietary fiber and phenolic compounds help in the prevention of many diseases such as diabetes, cardiovascular diseases and cataractogenesis.

Millet benefits

1. Aids weight loss
2. Keeps your blood sugar levels low
3. Boosts your immunity
4. Reduces cardiovascular risks
5. Prevents asthma
6. Helps in digestion
7. Acts as an antioxidant

Reasons for less popularity of millets:

- Lack of technical-know-how among the farmers and processors about the processing methods with respect to their own old methods of processing.
- Associated cultural issues in adoption and diversification of food.
- Lack of awareness among people about nutritive value of millets and a general opinion that millets are poor men crop.
- Reluctance among consumers to buy and consume millets.

Position of millets in comparison to staple food grains in human food chain:

There is a decline in consumption of millets and its products, where in it is originated and grown is due to the shift in consumer habits, rapid rate of urbanization, time and energy required to prepare millet based foods, inadequate domestic structure, poor marketing facilities, processing techniques, unstable supplies and relative unavailability of millets and its products, including flour, compared with other foodstuffs.

A Wonderful Food:

Due to the high content of these nutrients, millets have therapeutic benefits such as control of asthma, migraine, blood pressure, diabetic heart disease, atherosclerosis and heart attack. Fibre in millets, prevents gallstones formation. Whole grains like millets have health promoting effects equal or even in higher amount than fruits and vegetables and have a

protective effect against insulin resistance, heart disease, diabetes, ischemic stroke, obesity, breast cancer, childhood asthma and premature death.

Disappearing grain:

Millets were a steady part of Indian's diets until the Green Revolution, which encouraged farmers to grow wheat and rice. Now, these grains are slowly making a comeback. In the sixties, the Green Revolution – a national program that led to the widespread use of high yielding crop varieties, irrigation, fertilizers and pesticides which led to a dramatic increase in food grain production in India. But it also focused on two main crops i.e rice and wheat – which guzzle water. Now, after nearly four decades of intensive farming India is facing severe water crises. So, many states are trying to come up with a more sustainable way to farm and Karnataka is leading the way with its efforts with millets. There are many factors that make millets more sustainable as crops. Compare the amount of water needed to grow rice with that for millets. One rice plant requires nearly 2.5 times the amount of water required by a single millet plant of most varieties. Millets can also withstand higher temperatures. They can also grow in saline soil. Millets could therefore be an important solution for farmers struggling with climate change – sea level rise (which can cause soil salinity to increase), heat waves, droughts and floods.



The revival movement

In spite of several health and economic benefits millets are disappearing from people's diet and farm lands. In the past couple of years, with more and more people discovering gluten sensitivity and full-blown celiac disease, we have begun to look beyond rice. Urgent attention

must be given to the production and consumption of millets to ensure food and nutrition security. With increasing urbanization and rising disposable incomes, the demand for pre-processed and convenience foods is accelerating. This is one reason why commercially milled wheat and maize flour are increasingly preferred. Millet is much cheaper, but they are unprocessed and therefore less convenient to use. As a result, markets for locally grown millet are diminishing, incentives for local production are deteriorating, and foreign exchange reserves are dwindling to meet ever-rising demands for pre-processed flours. Thus, in dry regions, processing facilities are particularly vital to the future of local millet farming. Thus, millets are so compelling to agree their needs to educate consumers on the health benefits and to encourage increased consumption. To do this, a joint effort by post harvest, health, food engineers, and nutrition professionals, including industry, government, and health promotion organizations is required. For this, we need support from nutrition educators in industry, academia, and government to develop clear and consistent messages in consumer language to communicate the positive health benefits of millet products. Thus, a commercial horizon would open up that have never before been contemplated in Indian Scenario.

Conclusion:

India needs to secure its food and farming for this century; there is an urgent need to recognize millets as the future food for the country and can adopt various relevant steps. It is also important to realize that for a New Age crisis such as the Climate Crisis, millets are a New Age Answer. Cereal grains, millet also called as Miracle Grain by The Millet Network of India can accord as the highest priority to the introduction of millets in India's Public Distribution System. It should incentivize millet cultivation in order to mitigate the alarming state of malnutrition in India, urgently start a massive awareness campaign on the nutritional value of millets and revise our educational curriculum to include offer abundant micro nutrients like vitamins, beta-carotene etc which are being consumed like pharmaceutical pills in present day. For most of us, returning to millets may involve some trial and error. But, even a few handfuls of millet in your everyday foods are better for you than none. Besides, by 2050, India will need to feed 1.7 billion people and millet's could help make that happen.