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Millets: Earth's Healing Harvest

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Abstract

Millets, a group of small-seeded grains, are emerging as Earth's healing harvest, offering a multitude of benefits for both human health and environmental sustainability. This narrative explores the unique qualities of millets, emphasizing their nutritional richness, resilience, and potential to address global challenges. In an era where diverse and nutrient-dense food options are crucial, millets stand out as nutritional powerhouses. These grains are rich in essential nutrients such as fiber, protein, vitamins, and minerals. Millets are gluten-free and have a low glycemic index, making them suitable for individuals with dietary restrictions and offering potential benefits for managing conditions like diabetes and obesity. The cultivation of millets is inherently sustainable, requiring less water and exhibiting resilience in diverse climatic conditions. This resilience makes millets particularly valuable in the face of climate change, offering a reliable food source that can thrive in challenging environments. Additionally, millet crops contribute to soil health, with their efficient water use and ability to grow in less fertile soils. The narrative delves into the role of millets in promoting biodiversity and food security. As hardy crops, millets contribute to agroecosystem diversity, supporting a more resilient and sustainable agricultural landscape. Their short growing periods and versatility make them suitable for intercropping and crop rotation strategies, enhancing overall farm productivity. Furthermore, the revival of millet consumption aligns with the goals of sustainable and local food movements.

Key Words- Gluten-free, Food security, Local food movements, Food source

Introduction

Millets are thought to have been the first domesticated cereal grain and are among the

world's oldest cereal grains to be farmed. There is an evidence that millets were first grown more than 5000 years ago as well as domesticated in Asia and Africa, and that they subsequently spread throughout the world as a staple grain. Millets have been mentioned in Yajurveda texts from India. Millet was widely grown until about half a century ago. However, its traditional wisdom has been disregarded as a result of the Western development paradigm. Aside from that, millet production suffered as a result of the Green Revolution. In addition, millets With the need for food being greater than ever due to the world's population growth it led to the overuse of resources like energy, land, and water brought on by this increase in food production. This resulted in the loss of biodiversity, soil erosion, and environmental degradation. Therefore, to feed the ever increasing population on the planet today, a significant overhaul of the food and agricultural systems worldwide is required which might be achievable by concentrating on millets production. These nutri cereals have exceptional climate resilience qualities, requiring less water than other cereals. This is regarded as a crucial characteristic for current and future agricultural scenarios because of weather changes brought on by global warming, particularly recurrent droughts (Feldman *et al.*, 2018) and guarantees people's access to food, nutrition, and financial security.

Millets: The climate resilient crops

1. **Shorter Life Cycle:** Millets have shorter crop duration (70 to 80 days) as compared to other commercial crops (Saha et al., 2016). This allows farmers to grow multiple rounds of crops in a year thereby reducing the production cost and being more economical.
2. **Grow virtually anywhere:** They are an ideal crop for dry, arid climates because they can thrive in challenging environments. Millets have long been a mainstay for people living in semi-arid regions of Asia, such as India. They can grow in sandy soils with varying pH balances, so soil quality is not a barrier to growth.
3. **Low Nutrient Uptake:** Millets absorb very little soil nutrients when compared to other cereal grains. Their nutrient needs are significantly lower than those of commercial and other food crops.

4. **Conserving and Increasing Soil Fertility:** Millets are hardy and resilient which contributes to the preservation and enhancement of soil fertility. Because of their slow composting process, which aids in preserving soil structure and water retention, they are beneficial to farmers as they play a significant role in nourishing soils and enhancing their texture and fertility. Millets can therefore aid in reducing soil loss brought on by environmental harm.
5. **Low dependence on irrigation:** Millets being rainfed in nature do not require intricate irrigation systems in order to flourish (Devkota *et al.*, 2016). They can survive in arid regions like Sub-Saharan Africa because of their strong root system, which finds and stores water.
6. **Pest and Disease Resistance:** Millets are resistant to a wide range of pests and diseases, both in the field and in storage following harvest. Therefore, fewer chemical pesticide sprays are needed for these crops.
7. **Mitigate Global Warming:** Millets have the potential to be a key player in reducing the adverse effects of global warming because they can help prevent soil erosion and barely contribute to the depletion of water resources.
8. **Less water requirement:** Millets are drought resistant as they require a very less amount of water approximately hundred liters of water for 1 kg of millet as compared to whopping thousand liters of water for other cereals.
9. **Human Health Friendly:** Millets are not only a crop that is good for the environment, but they can also preserve human health in the best way. Growing millets can help reduce all of the health issues because they don't require a lot of fertilizer or pesticides to grow.
10. **Nutritional factors:** Grain millets are incredibly nutrient-dense. Not only are they appealing to humans, but also to birds and other animals due to their high nutrient content.

11. **Irradiate Hunger:** Because of their hardy nature, millets are a great option to end world hunger. The rate at which the world's population is expanding will render conventional crops like rice, wheat, and others unsustainable in a few decades. The millet, with its hardiness and capacity to grow in any location, has the potential to significantly contribute to the fight against world hunger.
12. **Lower growing costs in terms of money and the environment:** Millets don't require their growing soil to have a high nutrient index. Therefore, fertilizers are not necessary to help them further. Due to their exceptional resistance to pests, farmers can cultivate and profit from the crop with great ease, as pesticides are rarely required for its growth.

Conclusion

Millets are a vital component in strengthening farmers. One of the easiest crops to grow in the field is millet. It doesn't need as much care or fertilizer as other cereals because it is a rainfed crop. One of the earliest crops to be grown for food because millets grow quickly, suit a variety of cropping systems, and adapt well to changing climatic and environmental conditions, they are simple to plant and maintain. The grain of the future is millets. Its advantageous traits for farming, good cultivation, environment friendly and good health make it a promising crop for agriculture.

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