



Millets as a Potential Crop of Tomorrow

**Mamoni Panging^{1*}, Pranjit
Sutradhar²**

^{1*}Krishi Vigyan Kendra Papum
Pare, Arunachal Pradesh

²Department of Agronomy,
Assam Agricultural University



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*Corresponding Author

Mamoni Panging*

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INTRODUCTION

The United Nations (UN) has declared 2023 as ‘the international year of millets’ and has called all stakeholders to provide support to draw policy attention to the nutritional and health benefits of millet consumption, and their suitability for cultivation under adverse and changing climatic conditions. Millets have the potential to help achieve the sustainable development goals—mainly Zero Hunger, Good Health and Well-being, Sustainable Consumption and Production and Climate Action.

Millets are powerhouse of nutrients due to which they are most often referred as “Nutri-Cereals” and super foods of tomorrow and are important food staples, particularly, in poor, semi-arid tropics of Asia and Africa (Mahendra, 2012 and Narloch *et al.* 2009). Millets are most popular in developing regions, like India and Africa, where food and nutritional security are the major challenges. The percentage of nutrients varies with each variety of millets; while the iron content of barnyard millet is 15.2 mg that of rice is 0.7 mg. Calcium content of foxtail millet is 31 mg whereas that of rice is 10 mg. They are also rich in dietary fibre, which is negligible in rice. In general, they are richer in calcium, iron, beta-carotene etc. than rice and wheat. With no gluten and low glycaemic index, it is ideal as diet for those with celiac diseases and diabetes. In a time where India is witnessing more than 8 Crore diabetic patients with 1.7 crore people dying every year from heart diseases and with over 33 lakh children malnourished and more than half of them falling in the severely malnourished category demands crop diversification with millets in the cropping system and as tweaking diet in every Indian plates. However, recently, it was also considered as one of the immune crops during Covid-19 pandemic.

Global importance:

It is grown in 131 countries and it is traditional food for 59 crore people in Asia & Africa. Historically, India always had a rich association with millets. But in the past six decades, India's agricultural policy favoured rice and wheat over millets. Taking into considerations, the importance of millets; in India the year 2018 was declared as the year of millets and recently, the United Nations General Assembly unanimously adopted a resolution put forwarded by India with counterpart Bangladesh, Nepal, Russia, Senegal, Kenya and Nigeria to mark 2023 as the "International Year of Millets".

Resource efficient:

Millets are the ancient crops of the mankind and are important for rainfed agriculture which are mostly cultivated under a variety of agro-ecological situations like plains, coast hills even diverse soil land varying rainfall. It require no irrigation, adapted to a wide range of ecological conditions; doesn't demand rich soils for its survival and growth. It is not dependent on the use of synthetic fertilizer for its production and moreover they remain abortive to pest and disease attack. A majority of the millets are not affected by storage pests either. Therefore, their need for pesticide is close to nil. Thus, it implies no implication to the agricultural environment apart from being having capability to get a state ridden from the burden of irrigation and power demands.

Climate smart crop of 21st century:

Millets are highly resilient in adapting to different ecological conditions; ideal crops

for climate change and contingency plantings. Being C₄ plants, these are more environment friendly with high water use efficiency and low input requirement. Millets are consumer, farmer and planet friendly crops.

The world needs to produce more food to feed a rapidly growing global population, which is projected to reach 8.6 billion by 2030 and a staggering 9.8 billion by 2050 in the time of increasing temperatures, changing monsoon and more frequent extreme climate events which are posing as vagaries of climate change and threat to food security. There is a heightened need for crop diversification by promoting crops suitable for cultivation in the toughest of the environments and it is the inclusion of millets in the cropping system that can withstand these challenges, survive and flourish. Millet farming also directly results in preserving and conserving biodiversity.

CONCLUSION

In India, although during the pre-Green Revolution era (1965-66), millets were cultivated in 36.90 million hectares (ha); however, in stark contrast, the area under millet cultivation declined to 14 million hectares (ha) in 2020-21, even then it, occupies a prominent place as 5th largest exporter of the world. This paves the way for India to becoming a global hub of millets, apart from delivering nutritious & healthy foods to the people of the country.