



Unlocking Nutritional Traits of Value Added Products in Millets– A Sustainable Approach for Healthy Lifestyle

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Abstract

Millets are traditionally grown in resource poor agro climatic situation. Millets were cultivated in Japan during the Jomon period sometime after 4000 BCE. India is the top millet-producing country in the world. It contributes 42% of global millet production. High nutritive and anti-oxidant in millet are found to be helpful with the reduction of weight, BMI, and high blood pressure. In India, Millet is generally consumed with legumes, which creates mutual supplementation of protein, increases the amino acid content, and enhances the overall digestibility of protein. Government of India had proposed to the United Nations for declaring 2023 as International Year of Millets. But in recent times, people experience and consume foods based on their appearance, the way of outcome food, taste, colour etc., irrespective of their nutritive conscious. In this regard, value addition on millets brings possible solution for its promotion and enhancement of consumption, and thereby increasing profitability and better livelihood to the rural as well urban community.

Keywords: Millets; Value addition; Profit.

Introduction

Millets are one of the oldest food grains known to mankind and possibly the first cereal grain used for domestic purposes. For centuries, millets have been a prized crop in India and are staple diet for nearly 1/3rd of the world's population. They can adapt themselves to marginal soils and varied environmental conditions.



Value addition of Millets






Value-added food products are raw or pre-processed commodities whose value has been increased through the addition of ingredients or processes that make them more attractive to the buyer and/or more readily usable by the consumer. Here, some of the millets, their mode of preparation and their health benefits are tabulated below.

Value addition and processed products of millets and their benefits

Sl.N o	MILLE TS	PROCESSED PRODUCTS	PROCESS / PREPARATION	HEALTH BENEFITS
1.	Sorghum "King of millets"		Instant Sorghum Idli mix, then add Sorghum Semolina & Blackgram dhal, then it should be Sieved. Then add salt, citric acid & sodium bicarbonate Mix it and Packaging	<ul style="list-style-type: none"> • Prevent cancer • Helps in Digestion • Improves heart health • Boost blood circulation • Good taste

Sorghum Idly and Dosa

<p>2. Finger millet, Pearl millet & Foxtail millet</p>	 <p>Finger millet Noodles and Kodo millet pasta</p>	<p>Ragi/Foxtail/Pearl, Wheat Semolina, then it should be weighed, followed by sieving, mixing then add water, then followed by extrusion, cutting, drying, cooling and finally packaging.</p>	<ul style="list-style-type: none"> • Breakfast food • Weight loss • Protein content of 9.39 % in Ragi • Favorite for kids
<p>3. Finger millet & Pearl millet</p>	 <p>Millet Laddu</p>	<p>Millet Flour (Sorghum, Finger Millet & Pearl Millet), Sieving, Roasting Cooling, Add Sugar Powder, Add fried dry fruits and cardamom finally Packaging</p>	<ul style="list-style-type: none"> • Rich source of phenolic compounds and causes satiety resulting in slower digestibility. • Reduces oxidative stress (Antioxidant) • Contains low calorie sugar and promotes healthy digestion by presence of dietary fibre. • It fights against Arthritis and Rheumatism
<p>4. Foxtail millet / Pearl millet</p>		<p>Ragi/Foxtail/Pearl Flour, Wheat, Add Yeast, Add Free Fat, Salt and Sugar followed by Dough Kneading, then Panning, Proofing, then Knock Backing, Shaping, Baking, Depanning, Cooling, Slicing, and finally Packaging</p>	<ul style="list-style-type: none"> • Millet bread is fiber rich and beneficial for all age groups. • Utility as breakfast food • Quick digestive • It is rich in magnesium, zinc, iron, dietary fiber and protein.
<p>5. Pearl millet</p>	 <p>Eggless Ragi Chocolate cake</p>  <p>Ragi Chocolate cake</p>	<p>Add fat, sugar and eggs – and Whisk till creamy consistency. Then Add Sorghum/Pearl millet / Finger millet or Foxtail millet flour. Then Add chocolate/vanilla essence Put in baking mould lined with parchment paper Bake in oven Drying at 180 Degree Centigrade for 25 min Cool</p>	<ul style="list-style-type: none"> • Utility as snack food or breakfast food • It is rich in magnesium, zinc, iron, dietary fiber and protein. • Feel good taste • Free of soda salt
<p>6. Jowar; Barnyard millet</p>	 <p>Barnyard millet upma</p>	<p>Sorghum Semolina followed by Sieving, then Add mustard seed & Bengal gram dal, then Roast it. Add dried curry leaves & green chillies Add Salt Mixing.</p>	<ul style="list-style-type: none"> • It is Gluten Free and safe for Celiac Patients. • Rich source of phenolic compounds • Reduces oxidative stress (Antioxidant) • Low calorie diet (through Dietary fibre) promotes healthy digestion

7.	 <p>Pearl millet</p> <p>Pearl millet puffs</p>	<p>Whole Bajra followed by Grading then Parboiling, Dehulling, Conditioning Gun puffing finally Bajra puffs</p>	<ul style="list-style-type: none"> • Prevent cancer • Helps in Digestion • Improves heart health • Boost blood circulation
8.	  <p>Foxtail millet</p> <p>Ragi sweet halva</p>	<p>Grind cooked millet with cup of water. Heat the pan then add sugar and water. When it melt completely, heat for few minutes. Then add ghee and keep flame on low flame. Then add millet paste. Then continue stirring until it become thick consistency. Finally add a spoon of ghee and bits of cashew and can be served.</p>	<ul style="list-style-type: none"> • Rich in proteins, carbohydrates, fiber, calcium, and iron • Protecting cardiovascular health • Preventing the onset of diabetes • Managing inflammation in the gut
9.	 <p>Ragi</p> <p>Ragi puttu</p>	<p>Take ragi floor and add salt and sugar. Then add water slowly and make it into ball. Put this in suitable puttu making gadget. Then keep cooker with bottom filled with water. Then at the bottom add some coconut, followed by puttu mixture, then at top sliced banana. Cook for 7-10 mins. Finally serve it.</p>	<ul style="list-style-type: none"> • Low glycemic index • High in fibre • Highly nutrition • Sweet in taste • Good for digestion
10.	 <p>Ragi</p>	<p>Weighing suitable proportion of Sorghum Bran Powder and Broken Flakes. Then mix well. Then add some binder (flour can be used) and sweetener (Honey syrup) and make it into suitable shape. Cool it and can be consume.</p>	<ul style="list-style-type: none"> • Rich in proteins, carbohydrates, fiber, calcium, and iron • Protecting cardiovascular health • Preventing the onset of diabetes • Managing inflammation in the gut

Conclusion

Though millets are known for “Poor man’s crop”, its nutritive value and its health benefit should be aware to everyone around the world. Since, the fast moving days, people prefer to go for highly tasty, cheap, less cooking time, more over its easy availability and awareness on traditional food. Unlike olden days where man used to have his food lavishly and slowly, the present trend changed the habits to foods which are simple and easy to digest. Hence, the existence of these foods fulfilled all the needs of modern human being. Hence extending value added food products chain to every corner around the world can bring wholesome change in every lifestyle and it bring over good healthy lifestyle for everyone.

“Health is Wealth”

References

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