

Different kinds of nutraceutical dietary products with their sensory and nutraceutical evaluation

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Abstract

Researchers and experts in the pharmaceutical and food industries are continually developing new products and rethinking the composition of processed meals as a result of the market for nutraceuticals and foods prepared with natural additives. These products, however, can only be introduced to the market after thorough and well-conducted scientific studies that clarify the mechanisms by which bioactive compounds can enhance health status beyond nutrition or can replace traditional food additives viewed as "unhealthy" or "unfamiliar" by consumers. Nowadays, nutraceuticals have received considerable interest due to potential nutritional, safety and therapeutic effects. A market Research recently proposed that the worldwide nutraceuticals market is expanding and would reach US \$250 billion by 2018. On the market, mostly unhealthy instant premixes are available. A lacuna of healthy instant pre-mix (Ready-to-eat) foods. There is a need to develop new concepts, find new ingredients, and design and build nutraceutical dietary products for marketing. Traditional foods and their dietary guidelines are prescribed in Ayurveda. This review article attempts to demonstrate the development of nutraceutical products and evaluate the concepts underlying their creation. This paper discusses the development of many sorts of food products as well as sensory analysis. Developed several types of nutraceutical items and listed all the related ingredients in the products. The futuristic concept, which involves sensory evaluation, microbiological testing, and a marketing strategy and create more market-oriented food goods that are well accepted by consumers. In this paper presenting innovative products incorporating millet, like ready-to-eat and ready-to-cook millet products have been developed to meet the consumers demand for healthy products.

Keywords: Food products; Ayurveda Nutraceuticals; Millets ready-to-eat recipe; Flavoured Granules

1. Introduction

Nutraceutical is a term derived from "nutrition" and "pharmaceuticals." The term is applied to products that are isolated from herbal products, dietary supplements, and specific diets; processed foods are also used as medicine. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) enlists three criteria for smart food: 'good for you', 'good for the planet', and "good for farmers," and millets seem to fulfil these requirements. Papers have shown that millets can replace wheat by up to 70% for preparing bakery products or any nutraceutical dietary Products like millets chocolate cake, millets muffins, millets soup, millets crunchies, millets cookies, millets instant dry mix, millets yush, and millets soup had a great taste, appearance, texture, and overall acceptability score when finger millets and quinoa millets were used as ingredients. Millets are rich in nutrients and can act as an adjuvant to following a healthy lifestyle. Ayurveda is more preventive than curative. It is a lifestyle solution. We wanted to offer a modern take on ayurveda that resonated with consumers. It's raining ayurvedic products. From big, fast-moving consumer goods firms

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to young startups, everyone's lining up ayurvedic-based nutrition and wellness foods. So, in this paper, innovative nutraceutical products incorporating millet, like ready-to-eat and ready-to-cook millet products, and products that enhance immunity and general health, like Shatavari-flavoured granules and Ashvagandha-flavoured granules, have been developed to meet consumers demand for healthy products.

2. Methodology

Nowadays, nutraceuticals have received considerable interest due to potential nutritional, safety and therapeutic effects. There is a list of some nutraceutical dietary products that are self-prepared and self-invented for a futuristic plan. And find new ingredients, design and build nutraceutical dietary products

Table 1 Different Formulation Ingredients

	Formulation	Ingredients
1.	Millets khakhra	Quinoa flour, Ragi flour, Muskmelon seeds Sesame seeds, Red chili powder, Rock salt Turmeric powder, Hing powder, <i>Go-ghrit</i> Kasturi <i>maithi</i>
2	<i>Shadang-Paniya</i> sharker (Juice)	<i>Mustha, Parpataka, Usheer, Chandan, Udeechya</i> <i>(sugandhabala), Nagar(shunthi), Dhaga mishri</i>
3.	Millet's crunchies	Quinoa seeds(white), Quinoa seeds(black), Ragi seeds, Muskmelon seeds, Sesame seeds, Sunflower seeds, Flax seeds, Chia seeds, Poha, Peanuts, Almonds, Rock salt, Black salt, Black papper, <i>Shunthi, Kari patta</i>
4.	Millet's <i>yush</i> (soup) (without any thickening agent)	Quinoa seeds(white), Quinoa seeds(black) Ragi seeds, Muskmelon seeds, Sesame seeds Sunflower seeds, Flax seeds, Chia seeds Peanuts, Almonds, Rock salt, Black salt Black papper, <i>Shunthi, Kari patta</i>
5.	Millet's cookies	Ragi seeds, Quinoa seeds(white), Quinoa seeds(black), Ragi seeds, Muskmelon seeds, Sesame seeds, Sunflower seeds, Flax seeds, Peanuts, Almonds, Baking powder, Baking soda Rock salt , Cocoa powder, Tutti frutti, <i>Goghrita, Godugdha</i>
6.	<i>Shatavari</i> Granules (with chocolate flavour)	<i>Shatavari churna, Dalchini, Tejpatra, Nagkeshar, Elaychi, Jayphal , Keshar, Jatamansi,</i> <i>Chandana, Pippalimool, Clove, Akhrota Giri, Dhaga Mishri, cocoa powder</i>
7.	<i>Ashwagandha</i> Granules (with chocolate flavour)	<i>Ashwagandha churna, Dalchini, Tejpatra, Nagkeshar, Elaychi, Jayphal , Keshar, Jatamansi,</i> <i>Chandana, Pippalimool, Clove, Akhrota Giri, Dhaga Mishri, cocoa powder</i>
8.	<i>Poshak</i> Laddu	Jaggery powder, <i>Aswagandha churna, Shatavari churna,</i> Quinoa seeds powder, Ragi seeds powder, musk melon seeds, Amla powder, <i>Akhrota giri, kesar, Elaychi powder, Anjeer,</i> <i>Anardana, Go-ghrita, Tila.</i>

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Figure 1 Self made millet's recipes

3. Conclusion and Future Outlook

An important part of this paper was to discover eight products (Millets khakhra, *Shadang-paniya sharkar*, Millet's crunchies, Millet's soup (without any thickening agent), Millet's cookies, *Shatavari* granules, *Ashwagandha* granules, and *Poshak laddu*) that were developed and investigated for their sensory characteristics and consumer liking by hedonic tests with 30 consumers. also used descriptive quantitative analyses and consumer tests to explore sensory characteristics, consumer liking of key attributes, their declared sensations and emotions, as well as consumers' facial expressions when responding to the eight dishes prepared using different types of millets or herbs like aswagandha and *shatavari* and made in the traditional (classical) form like granules, *sharker*, etc. The food sample was given to people for evaluation of organoleptic characteristics, viz., appearance, colour, taste, flavour, texture, and overall acceptability. The nutritive value has not yet been determined for all the food products. For all these products, product packing, labelling, and marketing will be carried out. In the future, a significant development is expected in the coming years. and there is a challenging assignment in food product development. It was an attempt to produce healthy ready-to-eat formulations with the combination of different millets and herbal drugs.

Compliance with ethical standards

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All authors have seen and agreed with the contents of this paper and they have no conflict of interest to declare.

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