



Plant Based Milk-An Alternative to Cow Milk

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Editorial

Milk is the lacteal secretion from healthy dairy animals. It is source of energy and therefore essential part of human diet. Worlds over half of the adult population is said to be lactose intolerant and plant-based milk (beverages) are ranked as the best -selling product among edibles. But lactose intolerance is not the only reason that people prefer plant-based milks over cow's milk. Primarily, Food and Drug Organization, American Academy of Pediatrics Center for Disease Control and Prevention and the American Medical Association urge people not to consume poor quality raw milk. As raw milk is a hub of infectious microorganisms, such as salmonella, E. coli and Listeria, which poses serious health risks to consumers. Outbreaks of tuberculosis in human population have been traced back to the consumption of infected raw milk. Moreover: raw milk quality determines the quality of dairy products. Good-quality dairy products can be manufactured only from good-quality raw milk produced under strict hygiene. Generally, consumers are showing passion for diversification in their diet by adding more plant-based edibles and consuming fewer animal-based products. The driving force for swift shift is the fact that Food and Agriculture Organization (FAO) considers dairy sector as a major actor in climate change. Because the water footprint for animal-based product production is larger than the water footprint for production of plant-based products with an equal value of nutrition.

Therefore, when different varieties of plant- based milk are compared it is observed that cow's milk has the largest environmental impact in terms of greenhouse gas emissions (16 %) , usage of land and water .In America and Europe one in two consumers either use plant- based milk alone or with cow milk, While in the Asia-Pacific region and Latin American countries, a substantial number of consumers regularly use plant based milk [1]. There is a wide range of milk alternatives, originating from a variety of plant sources. Predominantly, plant- based milk is categorized into five groups legume-based milk(beverages) including soya,

peanuts, etc. Cereal-based milk(beverages) including oats, rice, corn, etc. pseudo-cereal-based milk (beverages) (quinoa), nut-based milk (beverages)including almonds, coconut, pistachios, etc. and seed-based milks (beverages) including flax seeds, sunflower seeds, etc. Plant based milk such as derived from soy, almond, and other sources, are often coupled with cow milk. Because it is widely accepted that edibles derived from animals and plants differ in composition.

Proteins derived from plants do not couple the nutritional quality as those of animal origin. Besides protein content major differences observed between natural nutrients present in cow milk and plant-based milk including vitamin B12, calcium, fiber, and fat contents and their concentrations [2]. Currently, the Dietary Guidelines devised for Americans only include fortified soy beverages in milk group because they have essential nutrients similar to those found in cow milk. The Dietary Guidelines approved milk and fortified soy milk as part of healthy edible pattern because they contain multiple essential nutrients, including calcium, protein, vitamin A, vitamin D, magnesium, phosphorus, potassium, riboflavin, and vitamin B-12, as well as zinc and selenium. When doing grocery for plant-based edibles, it is essential for the buyer to notice the label entitled Nutrition Facts and decide to select products that are high in protein, vitamins, calcium, and potassium and low in saturated fat and added sugars. Plant-based milks (beverages) labelling legislation differ from country to country. Currently, several countries in the world are liberal to use term 'dairy' for plant-based beverages like India and China. However, it is more strictly regulated in America and use of the term 'soya' before the term 'milk' indicates that the beverage is not a dairy product to which specific dairy standards are applied [3].

Similarly, 'soya milk' is a legal sales brand in countries including Australia and New Zealand. In European countries use of the term 'milk' for plant -based alternatives is restricted and labelled as 'soya

drink'. Generally, each type of milk has its own pros and cons when comparing their nutritional properties. The extended downward shift in cow's milk consumption is a pattern that is accelerated by current circumstances, and it requires more investigations about future prospects for plant-based milk and edibles. Could these plant alternatives eventually replace cow milk altogether and the consumer's need for cow milk continue to dwindle. If answer is in favor of plant-based milk either for nutritional value, lower climate impact or to avoid lactose intolerance or simply due to personal preference. all indicators seem to favor plant-based milk industry to continue its march to dominate not only cow milk but other dairy milk industry. The conclusion is that the cow milk industry of the future could be shrunken than it is at present due

to shifting consumer preferences and ongoing competition from cow milk alternatives. It's really a difficult situation and needs proper attention. Eventually, if demand for cow milk continues to fall swiftly, momentous restructuring of the dairy industry and aggressive campaign for revival of consumers interest in natural dairy products becomes unavoidable.

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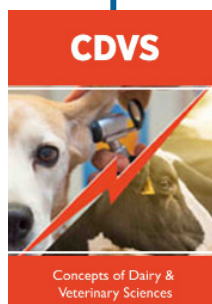
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