

## PLANT BASED MILK- A HEALTHIER ALTERNATIVE?

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### **Abstract**

The modern world has seen the emergence of newer food patterns in different parts of the world. One such trend is the use of plant-based milk as a substitute for bovine milk. There are certain regions of the world where cow milk is unavailable. This innovation has proved to be a boon in such areas. On the other hand, some people are switching their choices based on market trends, without paying much attention to the nutritional characteristics of the product. This article will conclude if replacing bovine milk with plant milk is a better option.

### **Introduction**

Plant-based milk is being consumed as a substitute for bovine milk by numerous consumers these days. There are various reasons attributed to this behaviour. The increased consumption is due to its preference amongst lactose-intolerant people, individuals suffering from hypercholesteremia, individuals with a vegan diet, and other social, economic, and ethical reasons. Plant-based milk is mostly derived from cereal, legumes, seeds, and nuts, which are grouped under functional and nutraceutical foods. Henceforth, the milk derived from these sources seems to be a healthier substitute to bovine milk to many people. But, is plant-based milk comparable in its properties to bovine milk, and is it a healthy alternative?

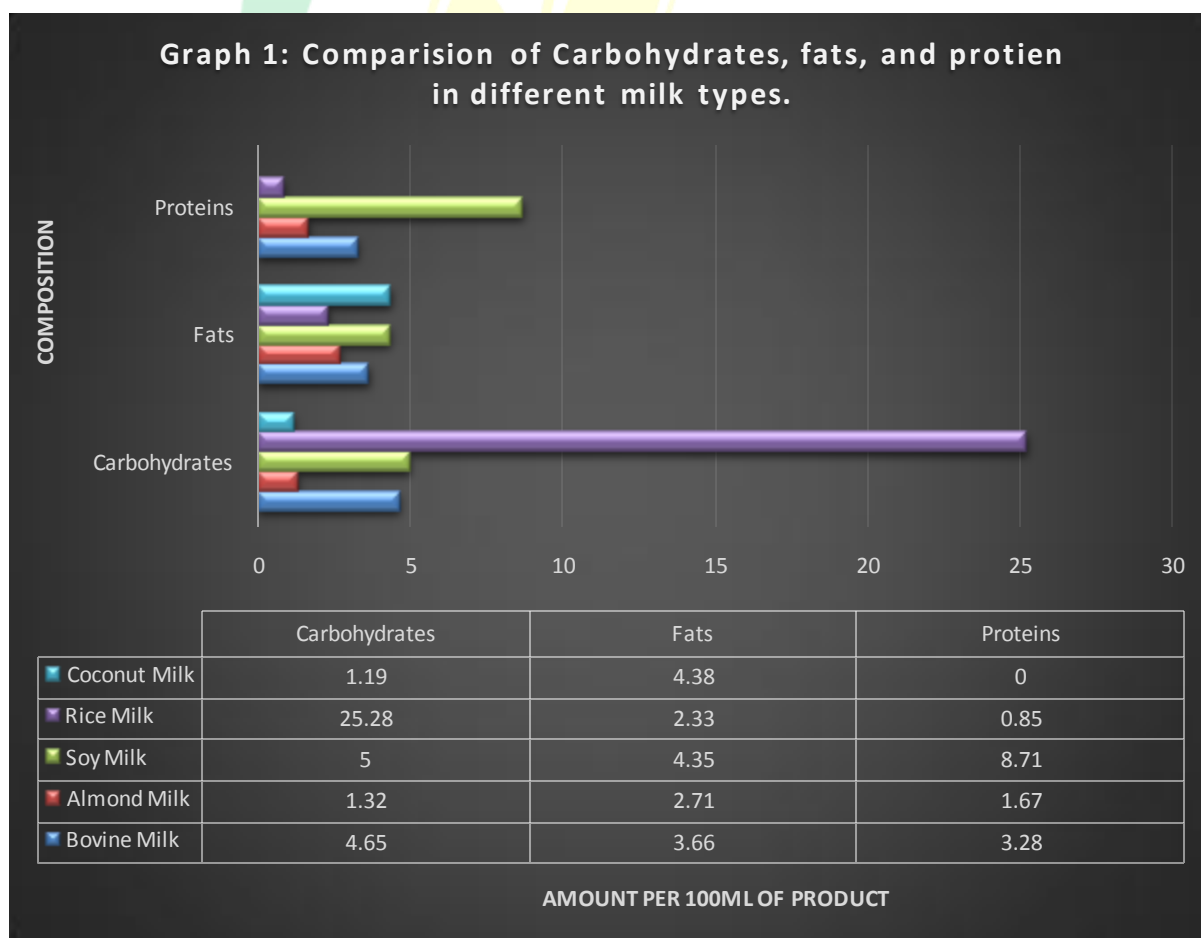
### **WHAT IS PLANT-BASED MILK?**

Numerous types of milk derived from plant sources include soy milk, oat milk, rice milk, almond milk, sesame milk, peanut milk, hazelnut milk, quinoa milk, etc. Newer possibilities are being researched every day. These kinds of milk are extracted by disintegrating plant

material and their extraction in water, followed by the homogenization process. These processes allow the fluid to imitate the texture and appearance of cow milk.

### COMPARISON WITH BOVINE MILK

To understand the similarities and differences between the two, let us take a comparative look at the composition of different types of plant-based milk and bovine milk. Bovine milk shows the composition of carbohydrates, protein and fat in moderation, all below 5ml per 100 ml of the product. However, in the case of different plant-based milk, all three components vary in composition to a great extent. For instance, in rice milk, one can observe the excess carbohydrate presence, but minimal protein content. Moreover, these values greatly differ from the cow milk composition (Refer to Graph 1). These variations in compositions indicate the possibilities of deficiency or excess of a particular nutrient in the body when the product is consumed on regular basis.



Though there are different components in plant-based milk (such as Isoflavones and Phytosterols in soy milk, Phenolic compounds in peanut milk, Phytosterols in Rice milk, etc.), which make them an amazing product to consume, still, we cannot say they are a healthier alternative to bovine milk. Plant-based kinds of milk are fortified to improve their nutritional composition and make them comparable to bovine milk. However, not all types of milk in the market undergo this process. In addition, extra sugar is added to mask the flavour in plant-based milk, which is detrimental to health.

Take a look at the below-mentioned characteristics of each milk type:

**Soy Milk-** Soy milk is considered one of the best alternatives to cow milk due to its nearly similar composition. However, its high consumption causes bloating and gastric problems in individuals. It is also not suitable for people with a soy allergy.

**Taste:** Slightly Beany, which is masked by the addition of sugar.

**Rice Milk-** Rice milk is generally preferred by people who have very limited beverage options due to allergies. However, on the nutrition part, it is not preferable. Moreover, the possible presence of arsenic in rice makes it hazardous, especially for consumption by children and pregnant women.

**Taste:** Sweet, watery mouthfeel.

**Almond Milk-** Though almonds are healthy, and almond milk is preferred by a lot of people, the processing destroys much of the goodness of almonds, unless and until the milk is consumed fresh. It is unsuitable for individuals with nut allergies.

**Taste:** Mild nutty flavour, slightly sweet in taste.

**Pea Protein Milk-** Contains much more protein than soy milk and cow milk. One of the best alternatives of bovine milk for allergic and lactose-intolerant people.

**Taste:** Smooth, creamy and clean taste

**Oat Milk-** Suitable for people with milk allergies and other intolerances.

**Taste:** Slight taste of cereals.



Coconut Milk- It contains a high amount of saturated fat, which is generally not considered good for health. However, by cutting saturated fat from other sources like cheese, cream, red meat, etc., one can have coconut milk, but in moderation.

Taste: Coconut flavour

Peanut Milk- It does not contain any added stabilizers or thickeners, and is naturally thick inconsistency. Not suitable for people with peanut allergies.

Taste: Peanut flavour, creamy consistency.

## CONCLUSION

Considering all the above-mentioned points, we can conclude that different plant-based milk undoubtedly provides an alternative to people unable to consume milk due to allergies and intolerances, but it is not a better substitute to bovine milk for the general populace. Also, according to the Deputy Administrator for the U.S. Department of Agriculture's centre for Nutrition Policy and Promotion, Jackie Haven, plant-derived milk normally does not contain enough important nutrients to replace dairy foods.

People can consume plant milk as and when desired, but not as a replacement to bovine milk as it can lead to deficiencies in the consumers' bodies.

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