

Development and Physico-Chemical Analysis of Vegan Lactose-Free Chocolate Milk extracted from *Fagopyrum esculentum*. (Buckwheat)

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Abstract: *The study of Buckwheat flavoured vegan milk development was carried out at the Parul Institute of Applied Sciences, Parul University, Vadodara. The main goal of developing a flavoured Buckwheat milk is to provide a lactose-free and delightful product to people who are lactose intolerant i.e. indigestion of lactose as well as cow's milk allergy. Buckwheat milk does not contain natural sugar lactose, so it can be recommended for people with lactose intolerance. Proper and ideal packaging along with refrigeration storage makes the Buckwheat milk fit and in sound condition for up to 10 days. Buckwheat milk has tremendous nutritional value and can be an effective asset in eradicating lactose intolerance by supplementing young age groups, lactose-intolerant people, and vegans who do not prefer to consume regular milk. Flavoured buckwheat milk was produced by extracting milk from germinated and non-germinated soaked buckwheat and different compositions of milk were prepared. Three distinct dilutions were created using buckwheat milk and water ratios (1:2, 1:4, 1:8) for further milk formulations. The best formulation is used for further organoleptic evaluations such as taste, colour, mouth feel, and overall acceptability. Following that, proximal analysis and microbial parameters were evaluated. The ideal selected formulation contained 5.14% Protein, 63.5% Carbohydrate, 0.53% Ash, 2.42% Fat, and 293 Kcal per 100g. According to the findings, buckwheat milk is a vegan product with a high nutritional value which can be strongly suggested for people who are lactose intolerant.*

Keywords: Buckwheat, Lactose-free, Vegan, Chocolate, Sugar-free

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