

Development of Nutri-bar Using Quinoa

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Abstract: The study of Nutri-bar development was carried out at the Parul Institute of Applied Sciences, Parul University, Vadodara. The main objective of study was to develop a Nutri-bar which will provide enough energy and protein to the body and can be consumed by celiac disease patients as well. Quinoa Nutri-bars were developed using quinoa and whey protein concentrate, oats, date paste, honey, nuts, psyllium husk. Dry heat treatments were given to quinoa and oat prior to use in preparation of Nutri-bar. Significant variations were found after heat treatment of quinoa and oats among all the physico-chemical parameters of grain, but ash content showed a non-significant variation. Four different formulations were developed with different concentration of date paste (40%, 60%, 80%, 100%) and whey protein (0%, 5%, 7%, 10%). Nutri-bar with F4 formulation with 100% date paste and 10% of whey protein was found to be the best on the basis of sensory evaluation like taste, texture, color, mouth feel, and overall acceptability. Selected Nutri-bar was assessed for physico-chemical parameters, microbiological and sensory characteristic. The selected Nutri-bar had 7.525% moisture content, 2.35% ash content, 16.63% protein content, 14.63% fat content, 277.16% carbohydrate content and provided 475.35Kcal. It can be concluded from the results that Nutri-bars are good source protein and energy and can be consumed when a meal has been missed as well as it can be consumed by malnourished and school children.

Keywords: Quinoa, Nutri-Bar, Psyllium husk, Whey Protein Concentrate

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