Pengaruh Pencampuran Tepung Kedelai dan Tepung Edamame serta Jagung dan Kentang terhadap Mutu Fisik, Kimia dan Organoleptik

Snack bar. (The Effect of Mixing Flours of Soybean, edamame Potato and Corn on the Physical, Chemical Quality and Organoleptic of Snack bars).

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ABSTRACT

Snack bars are practical snack foods favored for their high nutritional content, particularly carbohydrates and protein. The innovation of edamame snack bars offers a source of protein and fiber with a savory taste and dense texture. A proper formulation of filler and binder ingredients such as edamame flour, soybean flour, corn flour, and potato flour is essential to achieve desirable taste, aroma, color, and texture qualities preferred by consumers. This study aims to determine the best formulation for producing edamame snack bars with favorable organoleptic, physical, and chemical characteristics. The research employed a factorial Randomized Complete Block Design (RCBD) with two treatment factors. The first factor was the binder substitution ratio of edamame flour to soybean flour at six levels: 0:50 (A1), 10:40 (A2), 20:30 (A3), 30:20 (A4), 40:10 (A5), and 50:0 (A6). The second factor was the filler ingredient, consisting of two levels: edamame flour (B1) and soybean flour (B2). All treatments were repeated twice. Data were analyzed using Analysis of Variance (ANOVA), and treatments showing significant or highly significant differences were further analyzed using Duncan's Multiple Range Test (DMRT) at a 5% significance level. The results of the study indicate that the interaction between the edamame flour:soybean flour substitute filler and the binding agent has a significant effect on texture parameters (31.94 N), moisture content (5.49%), and hedonic quality colour (very green, 4.53), soft hedonic texture quality (4.17), hedonic colour preference (4.62), and hedonic texture preference (4.40).

Key Words: Snack bar, Edamame, Composite Flour, Organoleptic Quality