ABSTRACT

One of nutritional problems in children primary school are overweigh and obesity. Unbalanced consumption patterns is one of the causes of overweight and obesity in elementary school. Children was often buying snacks especially in schools. Street food sold in schools have an average fat content, high sugar content and low in fiber. Therefore we need an alternative healthy snack that can be increase the nutritional needs for children especially fiber. The research objective was to analyzed the acceptability (color, aroma, texture and taste), analyzing the nutritional value (fiber and protein) and the economic value of the addition of seaweed flour (Eucheuma cottoni) and oyster mushroom flour (Pleurotus ostreatus) in the manufacture of biscuits.

The type of research in the development of products used true experimental and organoleptic test used quasi-experimental a completely randomized design with four replications, 1 control and 5 treatments in first experiment and 4 treatments in second experiment. In the first experiment evaluation has been done by 4 panelists professional and by 25 panelists none skilled. Techniques of analysis used descriptive analysis and statistical analysis to analyzed differences acceptance by Friedman test and Wilcoxon Sign Rank Test at $\alpha = 0.05$.

The result of organoleptic test the most preferred treatment group was F3 (40% seaweed flour and 35% oyster mushrooms flour), and the most disliked is F2 (45 % seaweed flour and 30 % oyster mushrooms flour). Based on the calculation of TKPI per serving biscuits, the highest energy content was F0 (345.61 kcal), the highest protein content was F3 (8.35 g) and the highest fiber content was F1 (10.59 g). Based on the results of laboratory nutritional value (energy, protein, fiber) per serving of biscuits on the best treatment (F3) was energy 56.19 kcal, protein 2.92% and 4.23 % fiber.

Formula biscuits F3 (40% seaweed flour and 35% oyster mushrooms flour) has a good accepted for color, taste and texture. Food cost serving of biscuit t is an expensive Rp 3,614,00, but its content more high protein than the other formulas. So biscuit in this research can be used as an alternative snack for primary school children.

Keywords: Seaweed flour, Oyster mushroom flour, biscuits