

ABSTRACT

SITI NUR RAMADHANI. 2023. Substitution Effect of Purple Sweet Potato Flour (*Ipomea Batatas*) and Green oca (*Abelmoschus Esculentus*) As a High Fiber Snack Bar For Obese Adolescent Girls. Supervisor : I Komang Suwita, S.TP., MP dan Ir. Astutik Pudjirahaju, M.Si.

Obesity being a health problem for all people especially among adolescent girls. Riskesdas reports the prevalens of obesity in girls adolescent are higher than boy adolescent that 1,9% in 2013 and increased 4,5% in 2018. Adolescent girls are more prone to obesity because of difference in body fat, so that accumulation of fat in adipose tissue more greater. The purpose of the study is to analyze the effect of purple sweet potato flour and green oca as subtitutes for snack bar of chemical quality (water content, ash, protein, fat, and carbohydrates), energy value, dietary fiber, and organoleptic quality (color, aroma, taste, and texture) for obese adolescent girls. The type of research is Completely Randomized Design (CRD) using 3 levels of treatment with the proportion of wheat flour : purple sweet potato flour : green oca in P_0 (100 : 0 : 0), P_1 (20 : 40 : 40), P_2 (20 : 30 : 50), dan P_3 (20 : 20 : 60). The study was held from Agustus 2022 until February 2023. The result of the study showed that snack bar had a significant effect ($p < 0.05$) on water content, ash, protein, fat, carbohydrates, energy value, dietary fiber, color, taste, and texture but did not have a significant effect ($p > 0.05$) on aroma. The best treatment is snack bar of P_2 . Fat, carbohydrates, and energy value was appropriate of the USDA *National Nutrient Database for Standard Reference* 2018, which is $< 10,9\%$, $< 66,72\%$, < 403 but water content and ash was not appropriate of USDA Standard. Dietary fiber was appropriate of Perka BPOM 2022, which is $> 6g$ in every 100g product. It is necessary to improve water content and ash doing pra-treatment process in green oca using dry vacuum or flouing green oca.

Keywords : Obesity, Substitution, Snack Bar, Purple Sweet Potato, Green Oca