

PHYSICOCHEMICAL AND SENSORY CHARACTERISTICS OF PURPLE SWEET POTATO (*Ipomoea batatas* L.) FLOUR FLAKES WITH MUNG BEAN (*Vigna radiata*) FLOUR SUBSTITUTION

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Abstract

Background - Flakes are a ready-to-eat breakfast menu which generally contains protein, carbohydrates, minerals, fiber, vitamins and calcium.

Purpose - This study aims to utilize purple sweet potato flour and determine the effect of substitution of mung bean flour on proximate levels, physical and sensory properties of flakes.

methodology - This study used a completely randomized design (CRD) with one factor, namely the ratio of purple sweet potato flour and mung bean flour (100:0), (85:15), (70:30) and (55:45). Data analysis used was ANOVA with DMRT with 95% confidence interval

Findings - The results showed that adding more mung beans can reduce water, carbohydrate, and rehydration power, increase protein, ash, fat, and crude fiber, and affect sensory. The selected flakes were treatment A3 (purple sweet potato flour 55% and mung bean flour 45%). The selected flakes had a protein content of 9.12%, water content 2.33%, ash content 3.93%, fat content 1.33%, carbohydrates 83.27%, crude fiber 7.58% and rehydration power 24.57%. The results of the sensory quality test showed a slightly purple sweet potato taste (score 6.09), tasted mung beans (score 7.13), slightly yellowish brown or golden color (score 6.01), smelled slightly of purple sweet potato (score 5, 80) and slightly smelled of mung beans (score 6.10) and crunchy texture (score 7.98). The hedonic test results have the highest preference value on all parameters of taste (score 7.86), color (score 7.70), aroma (score 7.29), texture (score 7.83) and overall (score 7.56).

Originality - There is no research about PHYSICOCHEMICAL AND SENSORY CHARACTERISTICS OF PURPLE SWEET POTATO (*Ipomoea batatas* L.) FLOUR FLAKES WITH MUNG BEAN (*Vigna radiata*) FLOUR SUBSTITUTION

Keywords: Flakes, mung bean flour, purple sweet potato flour
