

**Pengaruh Perbandingan Beras Hitam dan Krokot terhadap flakes Kaya
Antioksidan Berbasis Ubi Jalar Ungu (*Ipomea batatas* L)
*Effect of Black Rice and Purslane Proportions on Antioxidant-Rich Purple
Sweet Potato-Based flakes (*Ipomoea batatas* L.)*
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ABSTRACT

The increasing consumption of convenient foods has encouraged the development of functional food products that are not only convenient to consume but also contain bioactive compounds beneficial to health. flakes based on local food ingredients rich in antioxidants are one alternative breakfast product with the potential to support food diversification while increasing the added value of local commodities. This study aimed to determine the effect of the formulation of purple sweet potato flour, black rice flour, and purslane flour on the chemical and physical characteristics of flakes as a functional food. The study used a Randomized Complete Block Design (RCBD) with six formulation treatments (K0–K5) and three replications. The observed parameters included antioxidant activity, carbohydrate content, moisture content, ash content, water absorption capacity, crispness retention in milk, and color (L, a, b). The data were analyzed using analysis of variance (ANOVA), followed by Duncan's test at a 95% confidence level. The results showed that increasing the proportion of purslane flour had a significant effect ($p < 0.05$) on antioxidant activity, carbohydrate content, moisture content, ash content, and water absorption capacity, but had no significant effect on crispness retention in milk and color L, a, and b. Antioxidant activity increased from 65.50% in treatment K0 to 75.60% in K5. In contrast, carbohydrate content decreased from 80.70% to 74.14%. Moisture content ranged from 3.69%–4.55%, while ash content ranged from 4.13%–4.64%. Water absorption capacity ranged from 1.44–2.04, crispness retention in milk ranged from 3.53–3.82 minutes, lightness (L) values ranged from 23.34–35.24, a values ranged from 15.66–17.78, and b values increased from 2.42 to 15.31. Treatment K2 produced the best chemical, physical and sensoric characteristics.

Keywords: *Antioxidant Activity, Black Rice Flour, flakes, Purple Sweet Potato Flour, Purslane Flour*