

Karakteristik Fisik, Kimia dan Organoleptik *Flakes* Berbasis Oat, Kacang Hijau (*Vigna radiata*), dan Krokot (*Portulaca oleracea* L.) sebagai Pangan Tinggi Serat

Physical, Chemical, and Organoleptic Characteristics of Flakes from Oat, Mung Bean (*Vigna radiata*), and Purslane (*Portulaca oleracea* L.) as a High-Fiber Food

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ABSTRACT

Flakes are ready-to-eat breakfast food that can be developed as high-fiber foods by utilizing oats, mung bean flour, and purslane powder. This study aimed to determine the effect of purslane powder proportion on the physical, chemical, and sensory characteristics of flakes and to identify the best formulation. A Completely Randomized Design (CRD) with one factor consisting of six treatments was applied: F0 (0%), F1 (5%), F2 (10%), F3 (15%), F4 (20%), and F5 (25%) purslane powder, with three replications. Data were analyzed using Analysis of Variance (ANOVA) followed by Duncan's Multiple Range Test (DMRT), while the best treatment was selected using the De Garmo method. The results showed that the proportion of purslane powder significantly affected ($p < 0.05$) color (L^ , a^* , b^*), water absorption, moisture content, ash content, protein, dietary fiber, carbohydrate content, and sensory properties, but had no significant effect on milk resistance. The best treatment was F4 (50% oats : 30% mung bean flour : 20% purslane powder) with water absorption of 1.06%, milk resistance of 2.57 min, moisture content of 3.93%, ash content of 3.84%, protein of 16.04%, carbohydrates of 61.07%, total dietary fiber of 12.22%, and hedonic scores of 3.44 (color), 3.52 (aroma), 3.28 (taste), 4.12 (texture), 2.52 (aftertaste), and 2.80 (mouthfeel).*

Keyword : Purslane Powder, flakes, Oat, High Fiber Food, Mug Bean Flour