

ABSTRAK

Pangan fungsional berbasis bahan lokal semakin diminati seiring meningkatnya kesadaran masyarakat akan pola hidup sehat. Penelitian ini bertujuan menganalisis pengaruh penambahan tepung rumput laut *Eucheuma cottonii* dan tepung sagu terhadap karakteristik organoleptik, kimia, fisik, kadar serat kasar, serta kontribusi Angka Kecukupan Gizi (AKG) pada produk *crackers*. Penelitian menggunakan tiga formulasi dengan konsentrasi tepung rumput laut berbeda, yaitu F1 (2%), F2 (4%), dan F3 (6%) berbasis tepung sagu. Data organoleptik dianalisis menggunakan uji Friedman dilanjutkan uji *Conover Post Hoc*, sedangkan data kimia dan fisik dianalisis dengan ANOVA dilanjutkan uji Duncan. Hasil menunjukkan formulasi F3 (6% tepung rumput laut, 35% tepung sagu) merupakan formulasi terbaik dengan tingkat penerimaan tertinggi (warna 3,58; aroma 3,45; rasa 3,71; tekstur 4,10). Penambahan tepung rumput laut berpengaruh nyata terhadap warna, rasa, dan tekstur, tetapi tidak berpengaruh nyata terhadap aroma. Karakteristik kimia F3 meliputi kadar air 6,65%, abu 5,09%, lemak 3,02%, protein 2,11%, dan karbohidrat 83,13%, dengan kadar serat kasar 4,22% yang memenuhi syarat klaim "sumber serat" menurut BPOM ($\geq 3\%$). Analisis tekstur instrumental menunjukkan pengaruh nyata hanya pada parameter *chewiness*. Berdasarkan takaran saji 15 g, F3 memberikan kontribusi energi 54,56 kkal (2,54% AKG), protein 0,45 g (0,75% AKG), lemak 0,32 g (0,48% AKG), karbohidrat 12,47 g (3,84% AKG), dan serat pangan 0,63 g (2,10% AKG). Formulasi F3 berpotensi dikembangkan sebagai *crackers* pangan fungsional rendah kalori, rendah lemak, dan bersumber serat berbasis bahan pangan lokal.

Kata kunci: *Crackers*, *Eucheuma cottonii*, Pangan fungsional, Sagu, Serat pangan.

ABSTRACT

Functional foods made from local ingredients are gaining popularity as public awareness of healthy lifestyles increases. This study aims to analyze the effect of adding *Eucheuma cottonii* seaweed flour and sago flour on the organoleptic, chemical, and physical characteristics, crude fiber content, and contribution to the Recommended Dietary Allowances (RDAs) in cracker products. The study used three formulations with different concentrations of seaweed flour, namely F1 (2%), F2 (4%), and F3 (6%) based on sago flour. Organoleptic data were analyzed using the Friedman test followed by the Conover Post Hoc test, while chemical and physical data were analyzed using ANOVA followed by the Duncan test. The results showed that formulation F3 (6% seaweed flour, 35% sago flour) was the best formulation with the highest acceptance scores (color 3.58; aroma 3.45; taste 3.71; texture 4.10). The addition of seaweed flour had a significant effect on color, flavor, and texture, but no significant effect on aroma. The chemical characteristics of F3 include moisture content of 6.65%, ash 5.09%, fat 3.02%, protein 2.11%, and carbohydrates 83.13%, with a crude fiber content of 4.22% that meets the requirements for the “source of fiber” claim according to BPOM ($\geq 3\%$). Instrumental texture analysis showed a significant effect only on the chewiness parameter. Based on a 15 g serving size, F3 provides 54.56 kcal of energy (2.54% of the RDA), 0.45 g of protein (0.75% RDA), 0.32 g of fat (0.48% RDA), 12.47 g of carbohydrates (3.84% RDA), and 0.63 g of dietary fiber (2.10% RDA). The F3 formulation has the potential to be developed as low-calorie, low-fat, fiber-rich functional food crackers based on local food ingredients.

Keywords: Crackers, *Eucheuma cottonii*, Functional foods, Sago, Dietary fiber.