SUBSTITUSI *EGG WHITE POWDER* PADA SOSIS IKAN KEMBUNG BANJAR (*Rastrelliger kanagurta*) SEBAGAI PANGAN SUMBER PROTEIN DALAM MENDUKUNG PROGRAM PENURUNAN STUNTING

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Abstrak

Stunting masih menjadi masalah gizi di Indonesia dengan prevalensi 19,8% pada tahun 2024. Salah satu faktor risikonya adalah Kurang Energi Kronis (KEK) pada Wanita Usia Subur (WUS). Upaya pencegahan dapat dilakukan melalui penyediaan pangan tinggi protein dan zat besi. Ikan kembung banjar (Rastrelliger kanagurta) merupakan sumber protein dan zat besi, sedangkan *egg white powder* (EWP) merupakan sumber protein berkualitas tinggi yang memiliki sifat fungsional baik pada produk olahan. Penelitian ini bertujuan menganalisis pengaruh substitusi EWP terhadap kandungan gizi, daya terima, serta menentukan formulasi terbaik sosis ikan kembung banjar. Penelitian menggunakan Rancangan Acak Lengkap dengan tiga formulasi: F1 (75 g ikan:10 g EWP), F2 (70 g ikan:15 g EWP), dan F3 (65 g ikan:20 g EWP). Analisis meliputi uji proksimat, kadar zat besi, organoleptik, dan indeks efektivitas De Garmo. Hasil menunjukkan substitusi EWP berpengaruh nyata terhadap kadar air ($p=0,043$) dan protein ($p=0,001$), tetapi tidak berpengaruh nyata terhadap kadar abu, lemak, karbohidrat, dan zat besi ($p>0,05$). Formula F1 ditetapkan sebagai formula terbaik (NP=0,57) karena memiliki keseimbangan terbaik antara kandungan gizi dan daya terima panelis.

Kata kunci: *egg white powder*, ikan kembung banjar, KEK, sosis ikan, stunting, wanita usia subur.

SUBSTITUTION OF EGG WHITE POWDER IN INDIAN MACKEREL (Rastrelliger kanagurta) SAUSAGE AS A HIGH-PROTEIN FOOD TO SUPPORT THE STUNTING REDUCTION PROGRAM

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Abstract

Stunting remains a major nutritional problem in Indonesia, with a prevalence of 19.8% in 2024. One of its risk factors is Chronic Energy Deficiency (CED) among Women of Reproductive Age. One strategy to prevent CED is the provision of foods rich in protein and iron. Indian mackerel (Rastrelliger kanagurta) is a good source of protein and iron, while egg white powder (EWP) is a high-quality protein source with excellent functional properties in processed foods. This study aimed to evaluate the effect of EWP substitution on the nutritional composition, sensory acceptability, and to determine the best formulation of Indian mackerel sausage. A Completely Randomized Design was used with three formulations: F1 (75 g fish:10 g EWP), F2 (70 g fish:15 g EWP), and F3 (65 g fish:20 g EWP). Analyses included proximate composition, iron content, sensory evaluation, and the De Garmo effectiveness index. The results showed that EWP substitution significantly affected moisture content ($p=0.043$) and protein content ($p=0.001$), but had no significant effect on ash, fat, carbohydrate, or iron content ($p>0.05$). F1 was identified as the best formulation (NP=0.57) because it provided the best balance between nutritional quality and sensory acceptability.

Keywords: egg white powder; Indian mackerel; Chronic Energy Deficiency; fish sausage; stunting; women in reproductive age.