RINGKASAN

DEVI NATASARI Formulasi *Fitofu Bites* Berbasis Ikan Tamban *(Sardinella lemuru)* Sebagai Cemilan Bergizi. Dibimbing oleh AIDIL FADLI ILHAMDY dan CINDYTIA PRASTARI

Pemanfaatan ikan tamban *(Sardinella lemuru)* sebagai sumber protein lokal bernilai gizi tinggi masih belum optimal, sementara konsumsi camilan praktis yang rendah zat gizi terus meningkat. Kondisi ini mendorong pengembangan produk pangan fungsional yang bergizi, praktis, dan memiliki daya terima baik. Penelitian ini bertujuan untuk mengembangkan *fitofu bites* berbasis ikan tamban serta menganalisis karakteristik sensori, nilai gizi, kandungan asam amino, tekstur, dan kontribusinya terhadap Angka Kecukupan Gizi (AKG). Penelitian dilaksanakan di laboratorium pengolahan Fakultas Ilmu Kelautan dan Perikanan UMRAH dan Laboratorium Saraswanti Indo Genetch, Bogor. Metode penelitian yang digunakan adalah eksperimen dengan empat formulasi, yaitu F0 (kontrol), F1 (40 g ikan), F2 (60 g ikan), dan F3 (80 g ikan). Prosedur penelitian meliputi pembuatan produk, uji organoleptik oleh 80 panelis, analisis proksimat (kadar air, abu, lemak, protein, karbohidrat), analisis asam amino, uji tekstur, serta perhitungan AKG. Data dianalisis menggunakan uji statistik untuk mengetahui perbedaan antar perlakuan. Hasil penelitian menunjukkan bahwa variasi formulasi tidak berpengaruh nyata terhadap warna dan aroma, tetapi berpengaruh signifikan terhadap rasa dan tekstur. Formulasi terbaik adalah F2 dengan tingkat kesukaan tertinggi. Secara kimia, F2 memiliki kadar air 61,16%, abu 1,77%, lemak 4,17%, protein 11,91%, dan karbohidrat 21,01%. Kandungan total asam amino sebesar 8.773,81 mg/100 g dengan asam amino esensial sebesar 41,8%. Hasil uji tekstur menunjukkan F2 memiliki karakteristik paling seimbang. Berdasarkan AKG, produk ini tergolong camilan rendah kalori dan lemak dengan kandungan protein yang cukup baik. Disimpulkan bahwa formulasi F2 merupakan formulasi optimal dan berpotensi dikembangkan sebagai camilan fungsional berbasis sumber daya lokal.

Kata kunci: Ikan Tamban, Fitofu Bites, Formulasi, Nilai Gizi

SUMMARY

DEVI NATASARI. Formulation of *Fitofu Bites* Based on Tamban Fish *(Sardinella lemuru)* as a Nutritious Snack. Supervised by AIDIL FADLI ILHAMDY and CINDYTIA PRASTARI.

The utilization of tamban fish (*Sardinella lemuru*) as a local protein source with high nutritional value remains suboptimal, while the consumption of low-nutrient snack foods continues to increase. This condition encourages the development of functional food products that are nutritious, practical, and well accepted by consumers. This study aimed to develop fish-based *fitofu bites* and to analyze their sensory characteristics, nutritional composition, amino acid content, texture properties, and contribution to the Recommended Dietary Allowance (RDA). The research was conducted at the Food Processing Laboratory, Faculty of Marine and Fisheries, Universitas Maritim Raja Ali Haji UMRAH and Saraswanti Indo Genetech Laboratory, Bogor. An experimental method was applied using four formulations: F0 (control), F1 (40 g fish), F2 (60 g fish), and F3 (80 g fish). The research procedures included product preparation, organoleptic testing involving 80 panelists, proximate analysis (moisture, ash, fat, protein, and carbohydrate), amino acid analysis, texture analysis using a texture analyzer, and RDA calculation. Data were analyzed using statistical tests to determine differences among treatments. The results showed that formulation variations had no significant effect on color and aroma but had a significant effect on taste and texture. The best formulation was F2, which achieved the highest level of panelist preference. Chemically, F2 contained 61.16% moisture, 1.77% ash, 4.17% fat, 11.91% protein, and 21.01% carbohydrates. The total amino acid content was 8,773.81 mg/100 g, with essential amino acids accounting for 41.8%, dominated by glutamic acid, leucine, lysine, and valine. Texture analysis indicated that F2 had the most balanced characteristics. Based on RDA calculations, the product can be classified as a low-calorie and low-fat snack with a good protein content. In conclusion, formulation F2 is the optimal formulation and has potential to be developed as a nutritious functional snack based on local resources.

Keywords: *Sardinella lemuru*, fitofu bites, formulation, nutritional value