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ABSTRAK

Kerang pisau (*Solen* sp.) merupakan komoditas di Perairan Madura kaya nutrisi dan berpotensi dikembangkan menjadi produk olahan inovatif berupa saus hidrolisat kerang. Tujuan penelitian ini adalah menganalisis kandungan gizi, kelimpahan bakteri dan mengidentifikasi pengaruh formula dan suhu penyimpanan berbeda terhadap karakteristik kandungan gizi dan kelimpahan mikroba saus hidrolisat kerang pisau. Rancangan penelitian menggunakan rancangan acak kelompok dengan perlakuan variasi formulasi dan suhu penyimpanan, melalui metode eksperimen meliputi preservasi kerang, hidrolisis kerang, pembuatan saus, uji kandungan gizi (Kadar air, abu, lemak, protein dan karbohidrat) serta kelimpahan bakteri (Angka Lempeng Total dan Angka Kapang Khamir). Perbandingan konsentrasi dalam proses hidrolisis menggunakan persentase kerang(%): garam (%): enzim papain(%), yaitu F1 (80:10:9:10), F2 (90:6:4), F3 (80:5:15). Hasil penelitian menunjukkan kandungan gizi pada parameter kadar air dan abu semakin meningkat sedangkan pada parameter kadar lemak dan protein serta kelimpahan mikrobiologi pada parameter angka lempeng total dan angka kapang khamir semakin menurun seiring peningkatan suhu dan lama penyimpanan. Setelah penyimpanan 40 hari, variasi formula dan suhu penyimpanan parameter kadar air, kadar lemak, kadar protein, kadar karbohidrat dan angka lempeng total bakteri berpengaruh signifikan (nilai $p < 0.05$) sedangkan parameter kadar abu dan angka kapang khamir tidak berpengaruh signifikan (nilai $p > 0.05$). Penelitian ini diharapkan menjadi informasi awal tentang formulasi dan suhu penyimpanan terbaik produk saus hidrolisat kerang pisau.

Kata kunci: Angka kapang khamir, hidrolisat, kandungan gizi, kelimpahan bakteri, produk olahan laut

ABSTRACT

*Razor clams (*Solen* sp.) are a nutrient-rich commodity found in the waters around Madura and have the potential to be developed into innovative processed products, such as razor clam hydrolysate sauce. The objectives of this study were to analyze the nutritional content and bacterial abundance, and to identify the effects of different formulations and storage temperatures on the nutritional characteristics and microbial abundance of razor clam hydrolysate sauce. The study design employed a randomized block design with treatments varying in formulation and storage temperature, using experimental methods including clam preservation, clam hydrolysis, sauce preparation, and testing of nutritional content (moisture, ash, fat, protein, and carbohydrate content) as well as bacterial abundance (Total Plate Count and Yeast and Mold Count). The concentrations in the hydrolysis process were compared using the following ratios of oyster (%): salt (%): papain enzyme (%), namely F1 (80:10:9:10), F2 (90:6:4), and F3 (80:5:15). The results of the study showed that the nutritional content of the moisture and ash content parameters increased, while the fat and protein content parameters, as well as the microbiological abundance of the total plate count and mold and yeast count parameters, decreased as temperature and storage duration increased. After 40 days of storage, variations in formula and storage temperature significantly affected ($p < 0.05$) moisture content, fat content, protein content, carbohydrate content, and total bacterial plate count, whereas ash content and mold and yeast count were not significantly affected ($p > 0.05$). This study is expected to provide preliminary information on the optimal formulation and storage temperature for hydrolyzed razor clam sauce products.*

Keywords: mold and yeast count, hydrolysate, nutritional content, bacterial abundance, processed seafood