

INTISARI

REFORMULASI GAS *MODIFIED ATMOSPHERE PACKAGING* TERHADAP UMUR SIMPAN OTAK-OTAK IKAN BARAKUDA PADA SUHU KAMAR

Penelitian ini bertujuan mengetahui pengaruh reformulasi komposisi gas CO₂ dan N₂ yang optimum pada produk otak-otak ikan barakuda untuk mengetahui masa simpan dan kualitas produk yang dikemas dengan metode *modified atmosphere packaging* menggunakan kemasan *polyethylene*. Otak-otak ikan barakuda dikemas dengan komposisi gas CO₂: N₂ secara berturut-turut 60%: 40% (A1), 65%:35% (A2), dan 75%:25% (A3) serta kontrol positif (vakum) (A4), dan kontrol negatif (tanpa vakum dan tanpa *modified atmosphere packaging*) (A5) selama 5 hari pada suhu ruang $\pm 27^{\circ}\text{C}$ dan kelembaban relatif (RH) $\pm 93\%$. Pengujian yang dilakukan yaitu uji kimiawi (kadar air, aktivitas air, pH, TBA dan TVB) uji mikrobiologi (angka lempeng total/TPC), serta uji organoleptik (kenampakan, aroma, rasa dan tekstur). Hasil dari penelitian otak-otak ikan menunjukkan *modified atmosphere packaging* memberikan pengaruh tidak beda nyata terhadap kualitas otak-otak ikan selama penyimpanan suhu ruang ($p\text{-value} > 0,05$). Pengemasan otak-otak ikan dengan menggunakan komposisi gas *modified atmosphere packaging* dan vakum memberikan pengaruh yang sama dan dapat disimpan hingga penyimpanan hari ke-2 sedangkan penyimpanan tanpa vakum dan tanpa *modified atmosphere packaging* masih dapat diterima oleh konsumen pada hari ke-0. Berdasarkan hasil uji statistik, perlakuan *modified atmosphere packaging* tidak memberikan pengaruh signifikan terhadap umur simpan produk.

Kata kunci: otak-otak ikan, modifikasi kemasan, formulasi gas, masa simpan

ABSTRACT

REFORMULATION OF MODIFIED ATMOSPHERE PACKAGING ON THE SHELF LIFE OF BARACUDA OTAK-OTAK FISH PRODUCTS AT ROOM TEMPERATURE

This study aims to determine the effect of reformulating the optimum gas composition of CO₂ and N₂ on otak-otak barracuda to determine the shelf life and quality of products packaged using the modified atmosphere packaging method using polyethylene packaging. otak-otak barracuda were packed with gas composition CO₂:N₂ successively 60%: 40% (A1), 65%:35% (A2), and 75%:25% (A3) and positive control (vacuum) (A4), and negative control (without vacuum and modified atmosphere packaging) (A5) for 5 days at room temperature $\pm 27^{\circ}\text{C}$ and relative humidity (RH) $\pm 93\%$. Tests carried out were chemical tests (moisture content, water activity, pH, TBA, and TVB) microbiological tests (total plate number/TPC), as well as organoleptic tests (appearance, aroma, taste, and texture). The results of the research on otak-otak barracuda showed that modified atmosphere packaging had no significant effect on the quality of fish brains during room temperature storage (p-value > 0.05). Packaging of otak-otak barracuda using modified atmosphere packaging and vacuum gas composition gives the same effect and can be stored up to the 2nd day of storage while storage without vacuum and modified atmosphere packaging is still acceptable to consumers only on day 0. Based on the results of statistical tests, the modified atmosphere packaging treatment did not have a significant effect on product shelf life.

Key word: fish otak-otak, packaging modification, gas formulation, shelf life