

Intisari

KUALITAS PEMPEK IKAN TENGGIRI DAN BARAKUDA DENGAN KEMASAN *MODIFIED ATMOSPHERE PACKAGING* (MAP) PADA BERBAGAI KOMPOSISI CO₂ DAN N₂ SELAMA PENYIMPANAN SUHU RUANG

Penelitian ini bertujuan untuk mengetahui umur simpan produk pempek ikan dengan kemasan *modified atmosphere packaging* (MAP) selama penyimpanan pada suhu ruang. Komposisi gas CO₂:N₂ untuk masing-masing perlakuan yakni 75%:25% (A1), 80%:20% (A2), 85%:15% (A3), serta kemasan vakum sebagai kontrol positif (A4) dan tanpa vakum tanpa MAP sebagai kontrol negatif (A5). Pempek ikan disimpan selama lima hari pada suhu ruang ($\pm 27^{\circ}\text{C}$). Paramater yang diamati meliputi pengujian kimiawi (kadar air, aktivitas air/A_w, pH, *total volatile basic-nitrogen*/TVB-N, *thiobarbituric acid*/TBA), pengujian mikrobiologi (angka lempeng total/ALT) dan pengujian sensoris (kenampakan, warna, bau, rasa, dan tekstur). Hasil penelitian ini menunjukkan bahwa gas MAP memberikan pengaruh yang signifikan terhadap umur simpan pempek ikan dibandingkan dengan pengemasan tanpa vakum dan tanpa MAP. Sementara jika dibandingkan dengan pengemasan vakum, perlakuan MAP tidak berpengaruh signifikan ($p\text{-value} > 0,05$). Umur simpan pempek ikan secara kimiawi layak dikonsumsi hingga hari ke-3. Sementara secara sensoris bertahan hingga hari ke-1 dan secara mikrobiologis hanya bertahan di hari ke-0. Hasil uji statistik menunjukkan ketiga perlakuan gas MAP tidak memberikan hasil yang berbeda terhadap umur simpan pempek ikan.

Kata kunci : MAP, nitrogen, pempek ikan, suhu ruang, umur simpan

Abstract

QUALITY OF SPANISH MACKEREL AND BARRACUDA PEMPEK WITH MODIFIED ATMOSPHERE PACKAGING (MAP) AT DIFFERENT GAS COMPOSITIONS OF CO₂ AND N₂ DURING ROOM TEMPERATURE STORAGE

This study aimed to determine the shelf life of fish pempek with modified atmosphere packaging (MAP) during room temperature storage. Gas composition for each treatment was CO₂:N₂ respectively 75%:25% (A1), 80%:20% (A2), and 85%:15% (A3), also vacuum packaging as a positive control (A4) and without vacuum and MAP packaging as negative control (A5). Fish pempek was stored for five days at room temperature ($\pm 27^{\circ}\text{C}$). The variables observed were chemical tests (moisture content, water activity/*A_w*, pH, total volatile basic-nitrogen/TVB), and thiobarbituric acid/TBA), microbiological test (total plate count/TPC), and sensory tests (appearance, color, odour, taste, texture). The results showed that MAP significantly affected fish pempek's shelf life compared to packaging without vacuum and without MAP. Meanwhile, when compared with vacuum packaging, MAP treatments did not show any significant difference ($p\text{-value} > 0,05$). The shelf life of fish pempek was chemically suitable for consumption until the 3rd day. While sensorily it lasted until day one and microbiologically, it only stayed on day 0. The statistical test showed that the three MAP gas treatments did not have a different effect on the shelf life of fish pempek.

Keywords : fish pempek, nitrogen, MAP, room temperature, shelf life