Intisari

APLIKASI *MODIFIED ATMOSPHERE PACKAGING* PEMPEK TENGGIRI DAN BARAKUDA PADA PENYIMPANAN SUHU KAMAR

Penelitian ini bertujuan untuk mengetahui variasi komposisi gas dalam *modified atmosphere packaging* (MAP) yang dapat memberikan pengaruh terbaik terhadap umur simpan produk (pempek ikan) serta mengetahui umur simpan pempek ikan yang dikemas dengan MAP menggunakan plastik *polyethylene* (PE). Perlakuan yang dicobakan berupa variasi komposisi gas $O_2 : CO_2 : N_2$ berturut-turut 3 : 25 :72% (A1); 3 : 35 : 62% (A2); 5 :25 :70% (A3); 5 : 35 : 60% (A4); kontrol positif/kemasan vakum (A5); dan kontrol negatif/kemasan tanpa vakum (A6). Pempek ikan disimpan pada suhu kamar ($\pm27°C$) selama 5 hari pengamatan. Pengujian yang dilakukan antara lain uji mikrobiologi (angka lempeng total/ALT); uji inderawi/skoring (kenampakan, warna, bau, rasa, tekstur); serta uji kimiawi (pH, kadar air, kerusakan lemak/TBA dan total basa menguap/TVB.

Hasil penelitian menunjukkan bahwa aplikasi MAP memberikan efek yang lebih baik terhadap mutu pempek ikan selama penyimpanan dibandingkan dengan pengemasan tanpa vakum dan tanpa MAP, namun tidak menunjukkan adanya perbedaan yang signifikan (p-value>0.05) dibandingkan dengan pempek ikan yang dikemas vakum. Umur simpan pempek ikan yang dikemas dengan MAP dan vakum tergolong layak dikonsumsi hingga hari ke-4 penyimpanan, sedangkan yang dikemas tanpa vakum dan tanpa MAP hanya layak dikonsumsi pada hari ke-1. Berdasarkan hasil uji statistik, keempat perlakuan variasi komposisi gas MAP tidak memberikan pengaruh signifikan terhadap umur simpan produk.

Kata kunci : pempek ikan, MAP, modifikasi kemasan, komposisi gas, umur simpan

Abstract

APPLICATION OF MODIFIED ATMOSPHERE PACKAGING ON MACKEREL AND BARRACUDA PEMPEK AT ROOM TEMPERATURE STORAGE

The aim of this study was to determine the variation in the composition of the gas in the modified atmosphere packaging (MAP) which can have the best effect on the shelf life of the product (fish pempek) and to determine the shelf life of fish pempek packed with MAP using polyethylene (PE) plastic. The treatments tried were in the gas form of variations in the gas composition of O_2:CO_2:N_2 respectively 3:25:72% (A1); 3:35:62% (A2); 5:25:70% (A3); 5:35:60% (A4); positive control/vacuum packaging (A5); and negative control/packing without vacuum and without MAP (A6). Fish pempek was stored at room temperature ($\pm 27°C$) for 5 days of observation. The testing which has been done were microbiological tests (total plate count/TPC); sensory tests/scoring (appearance, color, smell, taste, texture); and chemical tests (pH, moisture content, fat damage/TBA and total volatil base/TVB).

The results showed that the application of MAP gave a better effect on the quality of fish pempek during storage compared to packaging without vacuum and without MAP, but did not show any significant difference (p-value>0.05) compared to vacuum-packed fish pempek. The shelf life of fish pempek packed with MAP gas is classified as fit for consumption until the 4th day of storage, while fish pempek which is packed without vacuum and without MAP is only suitable for consumption on the 1st day. Based on the results of statistical tests, the four treatments for variations in the composition of MAP gas did not have a significant effect on the shelf life of the product.

Keywords: fish pempek, MAP, modified packaging, gas composition, shelf life