

ABSTRACT

THE CONCENTRATION EFFECT AND IMMERSION DURATION OF REDESTILATED COCONUT SHELL LIQUID SMOKE ON SENSORY CHARACTERISTICS AND STORAGE LIFE OF FRESH BAUNG FISH (*Mystus nemurus*) STORED AT ROOM TEMPERATURE

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The use of liquid smoke in food products, can reduce the carcinogenic components. One of the potential raw materials for liquid smoke in Lampung Province is coconut shell. The aim of this study was to obtain the concentration of red-distilled coconut shell liquid smoke and the best duration of immersion of fish in the fumigation of baung fish. The study was arranged in a Complete Randomized Block Design (CBRD) with two factors and three replications. The first factor was the concentration of redistilled coconut shell liquid smoke, namely D1 (5%(v/v)), D2 (10% (v/v)) , D3 (15% (v/v)), and D4 (20% (v/v)). The second factor was the immersion time, namely L1 (10 minutes), L2 (20 minutes), L3 (30 minutes) and L4 (40 minutes). The data obtained were tested for similarity of variance with Bartlett's test and additivity with Tuckey's test. Analysis of variance was used to determine whether there was an effect of treatment, then further tests were carried out using the Orthogonal Polynomial test at the 5% level.

The results of the rubber wood liquid smoke test show that grade 2 liquid smoke is dominated by saturated fatty acid compounds, such as palmitic and stearic. The results of observations on smoked baung fish showed that the higher the concentration of liquid smoke and the longer the immersion, the total microbes of smoked baung fish decreased. The best treatment based on the recapitulation of research data is the concentration of liquid smoke D4 (20% v/v)) and L4

immersion time (40 minutes) which gives the total plate number ($32,333 \times 10^4$ CFU/g on day 0 and $29,667 \times 10^4$ CFU/g on day 7), moisture content (49,452% on day 0 and 62,184% on day 7) and organoleptic properties (aroma, texture and color)

Keyword : Liquid Smoke, Baung Fish, Coconut Shell

ABSTRAK

PENGARUH KONSENTRASI DAN LAMA PERENDAMAN ASAP CAIR TEMPURUNG KELAPA REDESTILASI TERHADAP KARAKTERISTIK SENSORI DAN UMUR SIMPAN IKAN BAUNG SEGAR (*Mystus nemurus*) YANG DISIMPAN PADA SUHU RUANG

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Penggunaan asap cair pada produk makanan, dapat mengurangi komponen karsinogenik. Potensi bahan baku untuk asap cair yang ada di Provinsi Lampung salah satunya ialah tempurung kelapa. Penelitian ini bertujuan untuk mendapatkan konsentrasi asap cair tempurung kelapa redestilasi dan lama perendaman ikan terbaik pada pengasapan ikan baung. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan dua faktor dan tiga kali ulangan. Faktor pertama adalah konsentrasi asap cair tempurung kelapa redestilasi, yaitu D1 (5% (v/v)), D2 (10% (v/v)), D3 (15% (v/v)), dan D4 (20% (v/v)). Faktor kedua adalah lama perendaman, yaitu L1 (10 menit), L2 (20 menit), L3 (30 menit) dan L4 (40 menit). Data yang diperoleh diuji kesamaan ragamnya dengan uji Bartlett dan keaditifitasan dengan uji Tuckey. Analisis sidik ragam digunakan untuk mengetahui ada tidaknya pengaruh perlakuan, kemudian dilakukan uji lanjut menggunakan uji Polinomial Orthogonal pada taraf 5%.

Hasil pengujian asap cair kayu karet menunjukkan asap cair grade 2 didominasi oleh senyawa asam lemak jenuh, seperti palmitat dan stearat. Hasil pengamatan pada ikan baung asap menunjukkan semakin tinggi konsentrasi asap cair dan semakin lama perendaman maka total mikroba ikan baung asap semakin menurun. Perlakuan terbaik berdasarkan rekapitulasi data penelitian adalah faktor konsentrasi asap cair D4 (20% v/v) dan lama perendaman L4 (40 menit) yang memberikan nilai angka lempeng total ($32,333 \times 10^4$ CFU/g pada hari ke-0 dan

29,667×10⁴ CFU/g pada hari ke-7), kadar air (49,452 % pada hari ke-0 dan 62,184 % pada hari ke-7) dan sifat sensori (aroma, tekstur dan warna)

Kata kunci : Asap Cair, Ikan Baung, Tempurung Kelapa