

INTISARI
PENGARUH DURASI PRESTO DAN MASA SIMPAN TERHADAP NILAI Thiobarbituric Acid, TOTAL BAKTERI, DAN KUALITAS SENSORIS CEKER BACEM

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh durasi presto dan masa simpan pada suhu ruang terhadap nilai *Thiobarbituric acid*, total bakteri dan kualitas sensoris ceker bacem dalam kemasan *retort*. Ceker dimarinasi selama 3 menit dalam bumbu bacem. Durasi presto yang dilakukan adalah 15, 30, dan 45 menit. Sampel disimpan selama 8 minggu pada suhu ruang. Uji umur simpan dilakukan pada minggu ke-0, 2, 4, 6, dan 8. Parameter nilai *Thiobarbituric Acid* yang dianalisis yaitu uji ketengikan. Parameter mikrobiologi dianalisis menggunakan *Total Plate Count* (TPC). Parameter sensoris yang dianalisis yaitu warna, tekstur, aroma dan daya terima. Data kualitas ketengikan dan mikrobiologi dianalisis dengan analisis variansi Rancangan Acak Lengkap pola faktorial 4x5. Perbedaan rerata diuji dengan uji *Duncan's New Multiple Range Test*. Data kualitas sensoris dianalisis dengan analisis non-parametrik *Friedman*. Durasi presto 0,15,30, dan 45 menit menaikkan nilai *Thiobarbituric acid* (0,14; 0,15; 0,19 dan 0,29 mg MDA/kg) dan kualitas sensoris, namun menurunkan total bakteri (5,11; 5,00; 4,77 dan 4,82 Log CFU/kg) secara signifikan ($P < 0,05$). Masa simpan 0,2,4,6,dan 8 minggu meningkatkan nilai *Thiobarbituric acid* (0,16; 0,17; 0,20 dan 0,21 mg MDA/kg) dan total bakteri (4,86; 4,90; 4,97; 5,14 dan 4,93 Log CFU/g), namun menurunkan kualitas sensoris secara signifikan ($P < 0,05$). Penyimpanan ceker bacem mengalami penurunan nilai *Thiobarbituric acid* dan total bakteri pada minggu 8. Terjadi interaksi antara durasi presto (0,15,30, dan 45 menit) dan penyimpanan (0,2,4,6,dan 8 minggu) terhadap nilai TBA, total bakteri, dan kualitas sensoris ($P < 0,05$). Interaksi pada nilai *Thiobarbituric acid* didapatkan nilai TBA yang tidak jauh antar perlakuan yakni berkisar 0,16 mg malonaldehid/kg hingga 0,22 mg malonaldehid/kg. Interaksi pada total bakteri ceker bacem didapatkan metode lama waktu pemasakan presto 30 menit pada minggu ke-0 hingga minggu ke-6 terjadi peningkatan total bakteri yang dihasilkan yaitu dari 4.63 log cfu/g menjadi 5.23 log cfu/g, kemudian pada minggu ke-8 terjadi penurunan yaitu dengan nilai akhir total bakteri yaitu 4.18 log cfu/g. Interaksi pada kualitas sensoris didapatkan semakin lama durasi presto dan masa simpan menurunkan daya terima ceker bacem. Hasil penelitian menunjukkan bahwa ceker bacem presto paling baik dengan metode durasi presto 30 menit masih layak dikonsumsi hingga minggu ke-4 dengan nilai *Thiobarbituric Acid* 0.20 mg malonaldehid/kg serta total bakteri 4.97 log

cfu/g dan masih memenuhi syarat SNI (2009) dan ICMF (1996). Kesimpulan penelitian ini adalah Ceker bacem berdasarkan durasi presto mampu mempertahankan total bakteri dan kualitas sensoris, namun meningkatkan nilai *Thiobarbituric Acid*. Nilai *Thiobarbituric Acid* dan kualitas sensoris mengalami penurunan serta total bakteri mengalami peningkatan selama penyimpanan. Durasi presto 30 menit dan lama penyimpanan 4 minggu menunjukkan adanya interaksi terhadap nilai *Thiobarbituric Acid*, total bakteri, dan kualitas sensoris.

Kata Kunci: Ceker bacem, presto, total bakteri, nilai *Thiobarbituric Acid*, kualitas sensoris

EFFECT OF PRESSURE COOKING DURATION ON *Thiobarbituric Acid value*, TOTAL BACTERIA AND SENSORY QUALITY OF CEKER BACEM DURING STORAGE AT AMBIENT TEMPERATURE

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ABSTRACT

This study aimed to determine the effect of pressure cooking duration and shelf life on the value of Thiobarbituric acid, total bacteria, and the sensory quality of ceker bacem in the retort package stored at ambient temperature. The shank was marinated for 3 minutes in bacem seasoning. Pressure cooking duration was 15, 30, and 45 minutes. Sample were stored at room temperature. The shelf life test was carried out at weeks 0, 2, 4, 6, and 8. The parameter of the value Thiobarbituric acid that was analyzed was the rancidity test. Microbiological parameters were analyzed using Total Plate Count (TPC). The sensory parameters analyzed were color, texture, aroma, and acceptability. Rancidity and microbiological data were analyzed by mean of variance analysis of a 4x5 factorial completely randomized design. The difference in means is tested with Duncan's New Multiple Range Test. Sensory quality data were analyzed by Friedman non-parametric analysis. Presto duration of 0,15,30, and 45 minutes increased the value of Thiobarbituric acid (0,14; 0,15; 0,19 dan 0,29 mg MDA/kg) and sensory quality, decreased the total bacteria (5,11; 5,00; 4,77 dan 4,82 Log CFU/kg) significantly ($P < 0,05$). Shelf life of 0,2,4,6, and 8 weeks increased the value of Thiobarbituric acid (0,16; 0,17; 0,20 dan 0,21 mg MDA/kg) and total bacteria (4,86; 4,90; 4,97; 5,14 dan 4,93 Log CFU/g), but significantly decreased sensory quality ($P < 0,05$). The storage of ceker bacem decreased the value of Thiobarbituric acid and total bacteria at week 8. There was an interaction between the duration of pressure cooking (0,15,30, and 45 minutes) and storage (0,2,4,6, and 8 weeks) to Thiobarbituric acid, total bacteria, and sensory quality ($P < 0,05$). Interaction with Thiobarbituric acid values obtained TBA values that were not far between treatments, ranging from 0,16 mg malonaldehid/kg to 0,22 mg malonaldehid/kg. the interaction on total bacteria of ceker bacem by the duration cooking 30 minutes at week 0 to week 6 there was an increase in total bacteria produced, namely from 4,63 log CFU/g to 5,23 log CFU/g, the at week 6 until 8 there was a decrease with the final value of total bacteria, which was 4,18 log CFU/g. The interaction on sensory quality was found the longer the duration of the presto and the shelf life, the lower the acceptability of the ceker bacem. The results showed that the best pressure cooking ceker bacem with the pressure cooking duration method of 30 minutes was still suitable for consumption until the fourth week with a value of Thiobarbituric acid 0.20 mg

malonaldehyde/kg and total bacteria 4.79 log cfu/g and still qualify with qualify with SNI (2009) and ICMF (1996). In coclusion, the cecker bacem checker based on pressure cooking duration was able to maintain total bacteria and sensory quality, but increased the value of Thiobarbituric acid. The value of Thiobarbituric acid and sensory quality were decreased and the total bacteria increased during storage. At 30 minutes of pressure cooking duration and fourth week storage time indicated an interaction between the value of Thiobarbituric acid, total bacteria, and sensory quality.

Keyword: cecker bacem, pressure cooking, the value of Thiobarbituric acid, total bacteria, sensory