

PENGARUH LAMA MARINASI DAN PENYIMPANAN SUHU RUANG TERHADAP KUALITAS KIMIA, TOTAL BAKTERI, DAN KETENGIKAN PRODUK *READY TO EAT* AYAM BACEM KEMASAN *RETORT POUCH*

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh perbedaan lama marinasi dan penyimpanan suhu ruang terhadap karakter kualitas *ready to eat* (RTE) ayam bacem. Ayam bacem dikemas menggunakan *retort pouch* yang melalui proses sterilisasi dan vakum. Perlakuan lama waktu marinasi yang digunakan meliputi kontrol (0 menit), T1 (15 menit), T2 (30 menit), dan T3 (45 menit). Perlakuan lama penyimpanan dilakukan pada minggu ke-0, 1, 2, 3, 4, 5 dan 6 pada suhu ruang sekitar 25°C. Parameter yang diuji meliputi kualitas kimia (air, protein, lemak dan kolagen) menggunakan alat NIRS (*Near Infrared Spectroscopy*) *food scan*, total bakteri menggunakan metode *Total Plate Count* (TPC) dan ketengikan menggunakan uji *thiobarbituric acid* (TBA). Masing-masing perlakuan dilakukan sebanyak tiga kali pengulangan uji. Data penelitian yang diperoleh dianalisis dengan variansi pola faktorial. Perbedaan rerata diuji dengan *Duncans New Multiple Range Test*. Hasil analisis statistik menunjukkan bahwa perbedaan lama marinasi berpengaruh nyata ($P < 0,05$) terhadap kualitas kimia, total bakteri dan ketengikan (meningkatkan kadar air dan nilai TBA, menurunkan kadar protein, lemak, kolagen dan total bakteri). Perlakuan lama penyimpanan pada suhu ruang berpengaruh nyata ($P < 0,05$) terhadap kualitas kimia, total bakteri dan ketengikan (menurunkan kadar kimia, meningkatkan total bakteri dan TBA). Terdapat interaksi antara lama marinasi dan penyimpanan terhadap kualitas kimia yaitu kadar air, protein, dan lemak, total bakteri dan ketengikan ($P < 0,05$). Berdasarkan penelitian dapat diketahui bahwa pada RTE ayam bacem dengan perlakuan lama marinasi 15 menit dan lama penyimpanan hingga minggu ke-3 merupakan perlakuan terbaik berdasarkan total bakteri dan TBA yang masih dibawah SNI produk pangan (total bakteri: $< 5 \log \text{ cfu/g}$, TBA: $< 3 \text{ mg Malonaldehid/kg}$) disertai hasil analisis pada persentase kimia protein 24,83%, lemak 5,95%, dan kolagen 2,37%. Kesimpulan penelitian ini adalah kualitas terbaik *RTE* ayam bacem kemasan *retort pouch* pada lama marinasi 15 menit yang disimpan selama 3 minggu penyimpanan.

Kata kunci: Ayam bacem, Lama marinasi, Kualitas Kimia, Total Bakteri, Ketengikan

THE EFFECT OF MARINATE AND STORAGE DURATIONS AT ROOM TEMPERATURE ON THE CHEMICAL, TOTAL BACTERIAL, AND RANCIDITY QUALITY OF READY TO EAT AYAM BACEM IN RETORT POUCH PACKAGING

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ABSTRACT

This study aims to determine the effect of differences in the length of marinade and storage on the ready to eat (RTE) character of ayam bacem during storage at room temperature. Ayam bacem is packaged using a retort pouch which has gone through a sterilization and vacuum process. Treatments for the length of time used include Control (0 minutes), T1 (15 minutes), T2 (30 minutes), and T3 (45 minutes). Storage time treatments were carried out at weeks 0, 1, 2, 3, 4, 5, and 6 at room temperature of approximately 25°C. The parameters tested included chemical quality (water, protein, fat and collagen), total bacterial, and rancidity. Chemical quality testing was carried out using a NIRS (*Near Infrared Spectroscopy*) food scan, while total bacterial was tested using the *Total Plate Count* (TPC) method and rancidity using the *thiobarbituric acid* (TBA) test. The research data were analyzed using factorial pattern. The difference in mean was tested by Duncans Multiple Range Test (DMRT). Based on the results of the analysis of research data, it can be seen that the length of marinade treatment has a significant effect ($P < 0,05$) on the chemical quality, TBA, and total bacterial of RTE of ayam bacem. Treatment of storage time at room temperature significantly ($P < 0,05$) on chemical quality, TBA, and total bacterial of RTE ayam bacem. There is an interaction between the length of marinade and storage on the chemical quality namely water, protein, and fat content, TBA, and total bacterial of RTE ayam bacem ($P < 0,05$). Based on the research, it can be seen that the RTE of ayam bacem with treatments duration of 15 minutes of marinade and storage time of up to 3 is the best treatment based on the total value of bacteria and TBA which is still below the SNI for food products (total bacterial: $< 5 \log \text{ cfu/g}$, TBA: $< 3 \text{ mg Malonaldehyde/kg}$) with the results of the analysis on the chemical percentage of protein 24,83%, fat 5,95%, and collagen 2,37%. The conclusion of this study is that the best quality of RTE Bacem chicken in retort pouch packaging at 15 minutes of marinade is stored for 3 weeks of storage.

Keywords: Ayam bacem, Marinated, Chemical quality, Microbiology, Rancidity