

ABSTRAK

PENGARUH KONSENTRASI *Lactobacillus plantarum* TERHADAP pH, DAYA IKAT AIR, DAN KONDISI KEBUSUKAN DAGING BROILER

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Penelitian ini bertujuan untuk (1) mengetahui pengaruh penggunaan *L. plantarum* terhadap nilai pH, daya ikat air, dan kondisi kebusukan daging broiler, (2) mengetahui konsentrasi *L. plantarum* terbaik terhadap nilai pH, daya ikat air, dan kondisi kebusukan daging broiler. Penelitian ini dilaksanakan pada Maret 2021 di Laboratorium Produksi Ternak Jurusan Peternakan Universitas Lampung; Laboratorium Teknologi Hasil Pertanian Jurusan Teknologi Pangan Politeknik Negeri Lampung; dan Laboratorium Kesmavet Balai Veteriner Lampung. Materi penelitian menggunakan 20 *fillet* daging bagian dada ayam broiler. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 5 ulangan yaitu tanpa marinasi starter *Lactobacillus plantarum* (P0), marinasi 5% starter *Lactobacillus plantarum* (P1), marinasi 10% starter *Lactobacillus plantarum* (P2), dan marinasi 15% starter *Lactobacillus plantarum* (P3). Peubah yang diamati adalah pH, daya ikat air (DIA), dan kondisi kebusukan. Data pH dan daya ikat air yang diperoleh dianalisis dengan *Analysis of Variance (ANOVA)*, apabila hasil yang didapatkan berbeda nyata, maka dilanjutkan uji lanjutan dengan Uji Beda Nyata Terkecil (BNT), sedangkan data kondisi kebusukan dianalisis dengan analisis deskriptif. Hasil analisis ragam menunjukkan bahwa marinasi daging broiler dengan *L. plantarum* berpengaruh nyata ($P < 0,05$) menurunkan pH dan daya ikat air, serta hasil analisis deskriptif menunjukkan marinasi daging broiler dengan *L. plantarum* berdampak pada penghambatan kebusukan. Kesimpulan pada penelitian ini yaitu: (1) penambahan *L. plantarum* berpengaruh nyata terhadap penurunan nilai pH dan daya ikat air serta berdampak pada penghambatan kebusukan daging broiler, (2) daging broiler yang dimarinasi dengan konsentrasi *L. plantarum* 5% menunjukkan hasil yang terbaik pada nilai pH, daya ikat air, dan kondisi kebusukan daging broiler.

Kata kunci: daging broiler, kondisi kebusukan, pH, dan starter.

ABSTRACT

THE EFFECT OF CONCENTRATION OF *Lactobacillus plantarum* ON pH, WATER HOLDING CAPACITY, AND ROT CONDITIONS OF BROILER MEAT

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This study aims to (1) determine the effect of the use of *L. plantarum* on the pH value, water holding capacity (WHC), and rot conditions of broiler meat, (2) determine the best concentration of *L. plantarum* on the pH value, WHC, and rot conditions of broiler meat. This research was conducted in March 2021 at the Livestock Production Laboratory, Department of Animal Husbandry, University of Lampung; Laboratory of Agricultural Products Technology Department of Food Technology Lampung State Polytechnic; and the Veterinary Health Laboratory of the Lampung Veterinary Center. The research material used 20 broiler chicken breast fillets. This study used a completely randomized design (CRD) with 4 treatments and 5 replications, namely without *L. plantarum* (P0), 5% lactobacillus plantarum (P1), 10% *L. plantarum* (P2), and 15% starter marinated. *L. plantarum* (P3). The observed variables were pH, WHC, and rot conditions. The pH and WHC data obtained were analyzed by Analysis of Variance (ANOVA), if the results obtained were significantly different, then the follow-up test was carried out with the Least Significant Difference Test (LSD), while the decay condition data were analyzed by descriptive analysis. The results of the analysis of variance showed that broiler meat marinated with *L. plantarum* had a significant effect ($P < 0.05$) on reducing pH and WHC, and the results of descriptive analysis showed that broiler meat marinated with *L. plantarum* had an impact on rot inhibition. The conclusions in this study were: (1) the addition of *L. plantarum* had a significant effect to decrease in pH value and WHC and had an impact on the inhibition of rot of broiler meat, (2) broiler meat marinated with a concentration of *L. plantarum* 5% showed the best results at this value. pH, WHC, and rot conditions of broiler meat.

Keywords: broiler meat, rot conditions, pH, and starter.