

**The Effect of Soaking Time in Chlorine Solution on Microbial
Contamination of Liver and Gizzard Products
at PT. XYZ's Slaughterhouse**

Atharachman Dzaky Zen
Poultry Agribusiness Study Program
Department of Animal Science

ABSTRACT

This study aims to determine the effect of soaking time in chlorine solution on liver and gizzard products on microbial contamination in chicken slaughterhouses. The method used in this study used a Randomized Block Design (RAK) with a 2x7 factorial pattern, 2 levels were the type of sample, namely liver products and gizzard products, while 7 levels were the soaking time in chlorine solution with soaking times of 0 seconds, 10 seconds, 20 seconds, 30 seconds, 40 seconds, 50 seconds, and 60 seconds. Each treatment was repeated 3 times. The microbial contamination examined was the total number of bacteria (TPC), Escherichia coli bacteria, and Coliform bacteria. The microbial test data were then transformed to Log (Y+1) and statistically tested with analysis of variance. If the results had a significant effect, then continued with Duncan's Multiple Range Test (DMRT). The results showed that the type of sample and the duration of immersion in chlorine solution had a significant effect ($p < 0.01$) on total bacterial microbial contamination (TPC), Escherichia coli, and Coliform in liver and gizzard products, and there was no interaction ($p > 0.01$) between the type of sample and the duration of immersion in chlorine solution in liver and gizzard products. Liver and gizzard products soaked for 60 seconds in a chlorine solution with a concentration of 50ppm were the best treatment with a Total Plate Count (TPC), Escherichia coli, and Coliform of 0cfu/gr, which means that the 60-second treatment was the optimal time to kill bacteria in liver and gizzard products.

Keywords : Soaking, Chlorine, Liver, Gizzard, Microbes