

**EFFECT OF SUBMERSION BEEF IN TURMERIC RHIZOME SOLUTION  
(*Curcuma domestica* Val) WITH COMBINATION BETWEEN  
CONCENTRATION AND STORAGE TIME TO TOTAL NUMBER OF  
BACTERIA**

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**ABSTRACT**

The aim of this research was to know the antibacterial effect of turmeric rhizome solution (*Curcuma domestica* Val.) to total number of bacteria in beef with combination between concentration and length of storage time. The beef samples were divided into 60 pieces and each sample was 25 grams. The research used completely randomized design (CRD) by four concentrations of turmeric rhizome solution 0 gr 100 ml<sup>-1</sup>, 20 gr 100 ml<sup>-1</sup>, 40 gr 100 ml<sup>-1</sup>, 60 gr 100 ml<sup>-1</sup> and were stored in a normal room temperature with the duration time 0 hours, 3 hours, 6 hours respectively. The obtained data were analyzed by Analysis of Variance (ANOVA) and continued by Duncan multiple test. The result of this research showed significantly different ( $p < 0,05$ ) between the control (0 gr 100 ml<sup>-1</sup>) and the best concentrations (20 gr per 100 ml<sup>-1</sup> and 40 gr 100 ml<sup>-1</sup>) in the stored time 3 hours in the total of number bacterial colonies. Based on those result, it could be concluded that turmeric rhizome solution affected in decreasing the number of bacterial colonies.

**Keywords** : *Curcuma domestica*, antibacterial, beef, *total plate count* (TPC), storage time.