EFFECT OF ELECTRICAL FIELD AGAINST OF *Staphylococcus aureus* IN MILK

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**ABSTRACT**

The purpose of this research was to determine the effect of electrical field against *Staphylococcus aureus* (*S. aureus*) in milk. The subject of this research were 7500 ml sterilized milk and inoculated by $10^6$ CFU/ml *S. aureus*. The research was arranged by Completely Randomized Design (CRD) with four treatment and five replications. The control (K) were 250 ml sterilized milk and inoculated by $10^6$ CFU/ml *S. aureus*, and the treatment (P) were P1 = 250 ml sterilized milk inoculated by $10^6$ CFU/ml *S. aureus* + 10 V, P2 = 250 ml sterilized milk, inoculated by $10^6$ CFU/ml *S. aureus* + 15 V, P3 = 250 ml sterilized milk, inokulated by $10^6$ CFU/ml *S. aureus* + 20 V. The data were total of *S. aureus* in milk before and after the electrical treatment, analyzed using Analysis of Variant (ANOVA), followed by Duncan’s Multiple Range Test. The result showed that the application of electrical power on milk significantly affect between control and treatment but did not show significantly affect ($p>0.05$) on total number of *S. aureus* among each treatment.

**Keywords**: Electrical power, *Staphylococcus aureus*, milk, total number of bacteria, death of bacteria.