

**EVALUATE THE POTENTICITY OF LEMONGRASS (*Cymbopogon citratus*)  
ESSENTIAL OIL BASED AS OINTMENT ACTIVITY AGAINST  
*Staphylococcus aureus***

A Special Topic

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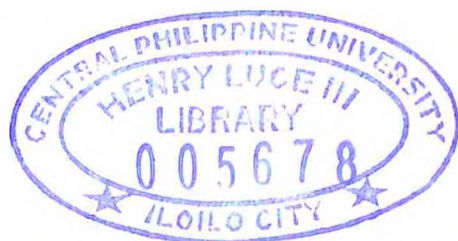
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**BACHELOR OF SCIENCE IN AGRICULTURE**

By:

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**ABSTRACT**

*Staphylococcus aureus*, a gram-positive bacteria, is a significant threat to many sectors because of its involvement in generating infectious illnesses, most notably bumblefoot in chickens. In this study, we investigated the possibility of lemongrass essential oil (LEO) as an alternate therapy for *Staphylococcus aureus* infection. We studied the efficiency of LEO in treating *Staphylococcus aureus* using precise evaluation methods, including minimum inhibitory concentration, zone of inhibition, and potency. The treatments, which included LEO, virgin coconut oil, and beeswax, were given in a fully randomized manner. The minimal inhibitory concentration and zone of inhibition data were analyzed using analysis of variance in a randomized method, and potency tests were benchmarked against known criteria. Our findings showed that a 5.00% concentration of LEO firmly reduced the development of *Staphylococcus aureus*, with effectiveness comparable to the positive control 72 hours after exposure. These findings highlight the possibility of 5.00% LEO in an ointment as a natural alternative to commercially marketed therapies for *Staphylococcus aureus* infections. However, more research using in vivo testing is required to identify possible allergic responses in laboratory animals. This study adds to the continuing efforts to battle *Staphylococcus aureus* infections, particularly in Philippine native chicken. It highlights the possible significance of natural therapies in resolving antimicrobial resistance issues in the sector.

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