

EVALUATION OF THE *IN VITRO* ANTIBACTERIAL ACTIVITY OF GUAVA (*Psidium guajava* L.) LEAF ALCOHOL EXTRACTS AGAINST *Staphylococcus aureus* R. IN PHILIPPINE NATIVE CHICKEN

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By

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ABSTRACT

The study was conducted from July 22 to 30, 2020 at the Department of Life Sciences Laboratory, Central Philippine University, Jaro, Iloilo City. The objective of this study was to evaluate the in vitro antibacterial activity of guava leaf alcohol extracts against *Staphylococcus aureus* R. The experimental treatments were laid out in completely randomized design (CRD) with three replications. The treatments consist of guava leaves (GL) acetone, GL ethanol, and GL methanol extracts, and GL pure extract. Tetracycline and distilled water were used as positive and negative control, respectively. The anti-bacterial activity of guava leaf extracts was analyzed through zones of inhibition (ZOI) 24 hours after the application of the controlling treatments. Study revealed that the GL acetone ethanol, methanol and pure extracts had significantly ($p < 0.05$) inhibited the growth of *S. aureus*. Furthermore, these guava extracts had comparable efficacy to the Tetracycline antibiotic. However, the use of pure extract is the most practical since it requires only a simple juice extraction procedure. On the other hand, distilled water showed no effect in controlling *S. aureus*. Based on the interpretative criteria using a disc diffusion susceptibility testing, *S. aureus* showed resistance to distilled water while intermediate susceptibility to Tetracycline antibiotic, GL ethanol and acetone extracts. However, *S. aureus* showed a susceptibility to GL methanol and pure extracts.