ANTIBACTERIAL ACTIVITY FROM THE SEEDS OF *Annona muricata* (SOURSOP)

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ABSTRACT

ANTIBACTERIAL ACTIVITY FROM THE SEEDS OF

Annona muricata (SOURSOP)

Annona muricata is belongs to the family of Annonaceae and is commonly known by many names, including "soursoup", "durian belanda" and "graviola". The ability to find new and improved antibacterial agents deriving from natural sources is seems worthy in the recent years to combat the increasing number of pathogenic microbial infections. The production of *Annona muricata* into food products bares a significant amount of wastage in the industry which leads to a tons of waste from the seed produced. Hence, seed of *Annonna muricata* from production can be utilized to identify its antibacterial properties for waste reduction purpose. A research was conducted on *Annona muricata* seeds retrieved from distinct Senaling, Kuala Pilah, Negeri Sembilan by determining the antibacterial activity against *Salmonella typhimurium* and *Staphylococcus aureus*. From this research, a broad knowledge on *Annona muricata*'s seed antibacterial property could be obtained. The methodology conducted to analyse the antibacterial activity from the seed extract which is disc diffusion. The purpose of this study is to find the antibacterial activity of the seeds of *Annona muricata* using disc diffusion method and to compare the antibacterial activity of different concentration of *Annona muricata* seeds against *Staphylococcus aureus* and *Salmonella typhimurium*. Findings from the disc diffusion method implied the greatest zone of inhibition recorded was *Staphylococcus aureus* which are 15.33mm ± 9.50 at 50mg/mL concentration followed by moderate zone at 13.33mm ± 2.89 at 75mg/mL concentration and the smallest zone is 7.33mm ± 2.31 at concentration 100mg/mL against the *Staphylococcus aureus*. As for *Salmonella* the biggest zone of inhibitionis 11mm ± 2.65 at 50mg/mL concentration, followed by 10.33mm ± 2.52 at concentration 25mg/mL and smallest are 7.33mm ± 1.15 at concentration 75mg/mL. As the conclusion the results obtained are evidence that the antibacterial properties from extract of *Annona muricata* seed could be further exploited as a source of antibacterial drug or antibiotic against disease and pathogenic microbial to be utilized for the benefits of medical purpose in the future.