

UJI DAYA ANTIMIKROBA AIR REBUSAN DAUN BUNGUR (*Lagerstroemia speciosa*. Pers) TERHADAP PERTUMBUHAN BAKTERI *Staphylococcus aureus* SECARA IN VITRO

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ABSTRACT

Lagerstroemia (*Lagerstroemia speciosa*. Press) is a plant that has potential as a drug, because it contains chemical compounds saponins, flavonoids, and tannins. This compound is predicted as antimicrobial substances. Bacterial samples used in this study is *Staphylococcus aureus*.

This study aims to determine : (1) the effect of water decoction of the leaves on the growth of *Staphylococcus aureus* bungur; (2) the effect of different concentrations of water decoction of leaves on the growth of *Staphylococcus aureus* bungur; (3) the most effective concentration of water decoction of leaves bungur showing of the inhibition of growth of *Staphylococcus aureus*. The research method used is based on experiment with Completely Randomized Design (CRD), the concentration of water decoction of leaves bungur is : 0.78%, 1.56%, 3.125%, 6.25%, 12.5%, 25%, 50%, and 100%. Data in the form of bacterial growth inhibition zone diameter of *Staphylococcus aureus* in NA medium that has been added to water decoction of leaves bungur in these concentrations. Data collection was conducted for three replications. The data analysis technique used is one-way analysis of variance test followed by Duncan's 5%.

Result showed that at concentrations of 0.78% average inhibition zone diameter of 6,70 mm, the concentration average of 1.56%-10.54 mm inhibition zone, the concentration of an average 3.125%-13.29 mm inhibition zone, the concentration of 6.25% average inhibition zone 18.16 mm, concentration on average 12.5%-20.50 mm inhibition zone, the concentration of 25% on average 21.78 mm inhibition zone, the concentration of 50% average inhibition zone 23.06 mm, and at a concentration of 100% on average 28.81 mm inhibition zone. From these data we can conclude that the cooking water bungur leaf (*Lagerstroemia speciosa*. Release) can inhibit the growth of *Staphylococcus aureus* bacteria, the difference in concentration of water decoction of leaves bungur effect on the growth of bacteria *Staphylococcus aureus* and 100% concentration is the most effective.