

**COMPARATIVE STUDY OF THE ANTI-BACTERIAL ACTIVITY OF FRESH AND AIR-DRIED  
PURSLANE (*Portulaca oleracea* L.) EXTRACT AGAINST THE ANIMAL STRAIN  
*Staphylococcus aureus* R. IN PHILIPPINE NATIVE CHICKEN**

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By

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**ABSTRACT**

*Staphylococcus aureus* R. has always been associated with poultry animals. Both humans and chickens can be carriers of the strains and the degree of pathogenicity depends on the level of immunity of the host. The best-known Staphylococcal infections are septicaemia and gangrenous dermatitis. The objective of the study is to compare and evaluate the efficacy of fresh and air-dried powder purslane (*portulaca oleracea* L.) extracts against *S. aureus*. The anti-bacterial activity of purslane extract was determined by the zone of inhibition (ZOI). Results of the study revealed that *S. aureus* R. is highly resistant (values at  $\leq 6$  mm) to methanol solvent and distilled water (negative control) while the strain was intermediately susceptible (11.47 to 21.60 mm) to fresh methanolic extract (FrME) with an average zone of inhibition (ZOI) of 14.80 mm. On the other hand, *S. aureus* R. showed resistance (values at  $\leq 11.46$  mm) on the agar well while being applied with powder methanolic extract (PwME) by having an average ZOI of 10.76 mm. This was followed by the purslane juice extract (4.87 mm) and purslane aqueous extract (6.40 mm). These results prove the presence of anti-bacterial properties of purslane which caused the limited formations of the zone of inhibition.