

***IN VITRO* ANTIBACTERIAL ACTIVITY OF FREEZE DRIED ASIATIC BITTER YAM,  
BETEL NUT, AND GARLIC AGAINST *Staphylococcus aureus* R.  
IN PHILIPPINE NATIVE CHICKEN**

A Project Report

Presented to

the College of Agriculture, Resources, and Environmental Sciences

Central Philippine University

Jaro, Iloilo City

In Partial Fulfilment

of the Requirements for the Degree

**BACHELOR OF SCIENCE IN AGRICULTURE**

By

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November 2020

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**ABSTRACT**

The study was conducted from November 11 to 13, 2020 at the CPU-CARES R & D Learning Center, Jaro, Iloilo City. The objective of the study was to evaluate the *in vitro* antibacterial activity of freeze dried asiatic bitter yam, betel nut, and garlic against *S. aureus* Rosenbach in Philippine native chicken. The experimental treatments were laid out in a completely randomized design with three replications. The treatments consisted of freeze dried asiatic bitter yam, betel nut, and garlic. Amtyl 500 antibiotic was used as the positive control and distilled water as the negative control. The potency of the freeze dried treatments was analyzed through zones of inhibition (ZOI) 24 hours after the application of the experimental treatments. Result of the study revealed that *S. aureus* applied with freeze dried treatments developed ZOI that are statistically wider than those in distilled water but narrower than that in Amtyl 500. On the other hand, based on the performance standards for antimicrobial susceptibility testing, *S. aureus* exhibited resistance to freeze dried asiatic bitter yam and distilled water. Freeze dried garlic and betel nut treatments showed susceptibility which is similar with the result interpretation on the Amtyl 500.