

**THE PROCESSING AND CONCENTRATION OF JATROPHA LEAF (*Jatropha curcas*  
L.) ESSENTIAL OIL AGAINST *Pseudomonas aeruginosa* of  
PHILIPPINE NATIVE CHICKEN**

A Special Topic

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The College of Agriculture, Resources, and Environmental Sciences

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In Partial Fulfillment

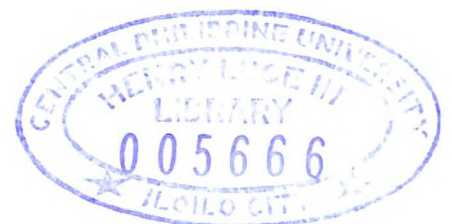
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BACHELOR OF SCIENCE IN AGRICULTURE

BY:

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*L.*) ESSENTIAL OIL AGAINST *Pseudomonas aeruginosa* of  
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**ABSTRACT**

This study may benefit future researchers, students, and farmers by providing useful knowledge. The effectiveness of *Jatropha curcas* leaf essential oil against *Pseudomonas aeruginosa* in native chicken was studied at Central Philippine University. The researcher conducted an essential oil production process on bacterial samples to determine the MIC and ZOI levels, utilizing methods such as collecting plant material, preparing the broth medium, and inoculating the bacteria to determine the effectiveness of *Jatropha curcas* leaf essential oil. The DMRT statistically evaluated the Minimum Inhibitory Concentration (MIC) of *Jatropha curcas* leaf essential oil at 60°C hot bath temperature and revealed that the highest mean percentage was 94.89%, indicating that 75% and 50% of the *Jatropha curcas* leaf essential oil were statistically not significantly different. *Jatropha curcas* leaf essential oil established appraisal levels, revealing that treatments with positive control and 100% concentration developed a wider ZOI, while DMRT results showed that treatments 85% and 100% showed no significant difference against *Pseudomonas aeruginosa*. *Jatropha curcas* leaf essential oil antimicrobial potency against *Pseudomonas aeruginosa* showed a range of 60% to 150% potency level after 72 hours of exposure.

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