

**DETERMINATION OF THE LETHAL DOSE CONCENTRATION (LD50) OF
STANDARDIZED BETEL LEAF (*Piper betel* L.) ESSENTIAL OIL
AMONG THE PHILIPPINE NATIVE CHICKEN**

A Special Topic

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By:

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ABSTRACT

This study was conducted at the Central Philippine University, College of Agriculture, Resources, and Environmental Sciences at the Research and Developmental Learning Building. The study began on November 2023 and ended on January 2024. The study was conducted to determine the lethal dosage concentration (LD50) of standardized Betel leaf (*Piper betel L.*) essential oil among the Philippine native chickens. The analysis of collected data was analyzed using percentage mean. Tables were presented to aid the discussion of results. Betel leaf essential oil displayed promising effectivity against *Pseudomonas aeruginosa*. Betel leaf essential oil undergone another observation to determine its toxicity when taken in high dosage and its beneficial effects on the Philippine Native Chicken. Four sample native chickens were used and all of these were 3 months old. In terms of signs and symptoms of over-dosage there was no sign of toxicity showed among the native chickens. In terms of survival rate, all native chickens were alive and active. Also in fecalysis, the results showed that Betel leaf essential oil showed deworming effect that was effective for eradicating the parasitic eggs. In conclusion, the determination of the lethal dose concentration (LD50) of standardized Betel leaf (*Piper betel L.*) essential oil do not display any harmful effects among the Philippine native chickens.