

**DETERMINATION OF THE LETHAL DOSE CONCENTRATION (LD50) OF
STANDARDIZED TURMERIC RHIZOME (*Curcuma longa*) ESSENTIAL
OIL AMONG THE PHILIPPINE NATIVE CHICKENS**

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 Development Learning Building. The study began on November 2023 and ended on January 2024. This study aimed to determine the lethal dosage concentration (LD50) of standardized Turmeric Rhizome (*Curcuma longa*) essential oil among the Philippine native chickens. These were monitored for one week. The treatments used in this study were derived from the findings of the Study about the Standardization of Processing and Concentration of Turmeric Rhizome (*Curcuma longa*) Essential Oil Against *Mycoplasma synoviae* of Philippine Native Chicken. It was analyzed using percentage mean. Tables were presented to aid the discussion of results. The tests revealed that the chickens survived in 2,000 mg/kg. In terms of signs and symptoms of over-dosage, there was no evidence of toxicity found. The test chickens were alive and active, no further tests were done after the limit test. This indicates that the birds received a very efficient dose of turmeric rhizome essential oil, as no deaths were reported. The ethanolic extract of *Curcuma longa* has good anthelmintic activity and effectively eradicates roundworms. It was also observed that they became healthier proving that turmeric essential oil is not toxic.

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