



CENTRAL LUZON STATE UNIVERSITY



**ANTIFUNGAL, ANTIOXIDANT, AND TERATOGENIC PROPERTY OF *Morus*
spp. LEAVES S54 VARIETY**

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An Undergraduate Thesis Submitted to the Faculty of the Department of
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State University, Science City of Muñoz, Nueva Ecija,
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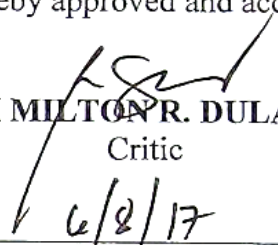


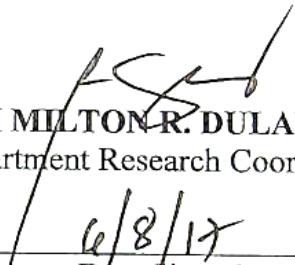
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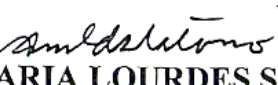

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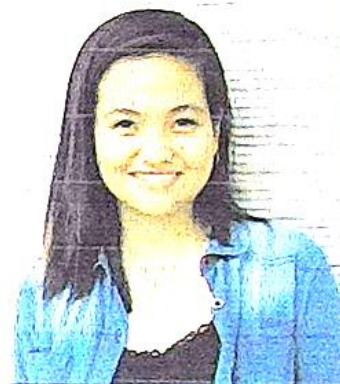
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ABSTRACT

SERRANO, JOHLIA LAE D. Bachelor of Science in Biology, Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, July 2017. **ANTIFUNGAL, ANTIOXIDANT, AND TERATOGENIC PROPERTY OF *Morus* spp. LEAVES S54 VARIETY**

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This study assessed the antifungal property of *Morus* spp. leaves S54 variety against *A. niger* and *R. oryzae*, and tested its antioxidant effects and teratogenic property. In assessing the antifungal property, haemocytometer was used. The diameter zone of inhibition were measured after 48, 72, 96 hours of incubation to the nearest millimeter using vernier caliper. Formation of zone of inhibition means effectivity of *Morus* spp. leaves S54 variety against the test pathogens and absence means resistance of the organisms to *Morus* spp. Ethanolic extract of *Morus* spp. leaves S54 variety had partially inhibited the growth of *A. niger* while there is no growth of inhibition in *R. oryzae*. For the determination of the radical scavenging activity of the crude extracts of *M. alba* L. S54 variety the DPPH radical scavenging activity assay by Kolak et al. (2006) The total phenolic content of the crude culture extracts were determined using the Folin – Ciocalteu method as described by Hodzic et al. (2009). *Morus* spp. leaves S54 variety crude extract exhibited 12.93% of radical scavenging activity. In terms of total phenolic, *Morus* spp. leaves S54 variety extract contain 67 mgAAE/1g of sample. Therefore,



Morus spp. leaves S54 variety had an antioxidant property. Evaluation of teratogenicity of hot water extract of *Morus* spp. leaves S54 variety were observed on the 12, 24, 36, 48 hours of treatment exposure using zebrafish (*Danio rerio*) as a vertebrate model and showed different dysmorphic features namely growth retardation, and malformation of tail and had caused mortality on zebrafish embryos.



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