

**OPTIMUM SUBMERGED CULTURE CONDITIONS FOR MYCELIAL  
BIOMASS PRODUCTION OF *Stropharia rugosoannulata***

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## ABSTRACT

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*S. rugosoannulata* belongs to the Strophariaceae family which is widespread in northern temperate zones throughout the world. This present work highlights the optimal liquid culture conditions with reference to the indigenous culture broth media namely: coconut water broth (CWB), rice bran decoction broth (RBDB), corn meal decoction broth (CMDB), and potato sucrose broth (PSB) were used, and different factors such as pH, temperature, illumination and agitation after 10 days of incubation. Based on the results of the study, the optimum condition for mycelial growth of *S. rugosoannulata* is RBDB (81.56 mg) with pH 7 (85.38 mg), air-conditioned (145.94 mg), total dark (218.88 mg) and agitated condition at 70 rpm (202.48 mg).

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