

**GROWTH PERFORMANCE AND SPORE PRODUCTION OF
VARIOUS SPECIES OF FUNGI ON AERIAL POTATO
AND OTHER LOCAL SUBSTRATES**

An Undergraduate Thesis
Presented to the Faculty of the
Department of Crop Sciences,
Cavite State University,
Indang, Cavite

In partial fulfillment
of the requirements for the degree of
Bachelor of Science in Agriculture
(Major in Crop Protection)



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*Growth performance and spore production of
various species of fungi on aerial potato*
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ABSTRACT

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A study was conducted to seek equally effective and readily available source of nutrients, which can support the growth of fungi. Specifically, it aimed to: (1) determine the effect of aerial potato on the mycelial growth and sporulation of fungi; and (2) determine the effect of dextrose substitutes in combination with aerial on various species of fungi.

Aerial potato, molasses, coconut water, and brown sugar were used as substitutes for the components of Potato Dextrose Agar (PDA). Six species of fungi were used namely, *Alternaria sp.*, *Aspergillus sp.*, *Cercospora sp.*, *Fusarium sp.*, *Helminthosporium sp.*, and *Metarhizium sp.*

Aerial Potato Dextrose Agar (APDA₁) containing 200ml of aerial potato infusion, 20 g dextrose and 15 agar supported the mycelial growth and sporulation of the six test fungi better than PDA.

Aerial Potato Molasses Agar (APMA) was the best medium for *Alternaria sp.*, *Aspergillus sp.*, *Fusarium sp.*, and *Helminthosporium sp.* Aerial Potato Brown Sugar Agar (APBSA) supported the growth of *Cercospora sp.* *Metarhizium anisopliae* grew in Aerial Potato Coconut Water Agar (APCWA).

Based on the results, aerial potato can be used as a substitute for the dehydrated Potato Dextrose Agar (PDA).

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