HORMONE-LIKE ACTIVITY OF SOIL BORNE FUNGI ISOLATED FROM ONION FIELD

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An Undergraduate Thesis Submitted to the Faculty of the Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines
in Partial Fulfillment of the Requirements
for the Degree of

BACHELOR OF SCIENCE IN BIOLOGY
(Major in Microbiology)

JUNE 2019

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ABSTRACT

PAGAY, LEIZL M. Department of Biological Sciences, College of Arts and Sciences, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **JUNE 2019, HORMONE-LIKE ACTIVITY OF SOIL BORNE FUNGI ISOLATED FROM ONION FIELD.**

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The present study evaluated the potential hormone-like activity of soil borne fungi isolated from onion field namely: *Aspergillus niger*, *Scopulariopsis brevicaulis* and *Penicillium citrinum*. Crude and ethanol extract of the aforementioned fungal soil borne were used to test their influence in root initiation, growth of decapitated coleoptile, coleoptile elongation, secondary leaf elongation and leaf senescence of rice and corn.

P. citrinum crude extract showed cytokinin and auxin-like activity which influenced the root formation while *S. brevicaulis* crude extract produced cytokinin-like activity which increased the length of rice and corn. For the growth of decapitated coleoptile, gibberellin-like activity (*A. niger* and *P. citrinum* ethanol extract) and auxin like activity (*P. citrinum* and *S. brevicaulis* crude extract) induced the growth of the decapitated coleoptile. Moreover, gibberellin-like activity by *A. niger*, *P. citrinum* and *S. brevicaulis* crude extract caused lengthening of secondary leaf of rice. Finally for the leaf senescence, leaves treated with *A. niger* crude and ethanol extracts did not show any signs of leaf senescence, but showed signs of black rot.

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