

**BIOLOGICAL CONTROL OF *Fusarium solani* USING WILT CURE IN TOMATO
(*Lycopersicon esculentum*)**

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(Crop Protection-Plant Pathology)**

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BIOGRAPHICAL SKETCH

The author, Leandro Gabuat Tecson was born on August 07, 1996, at PJGMRMC Talavera, Nueva Ecija. He is the youngest child of the three children of Vilma G. Tecson and Florencio V. Tecson. He is currently living at Basang Hmaog, Talavera, Nueva Ecija.

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He was also a member of the Pest Management Society. He became Auxilliary Grand Artist in 2016-2017 and Deputy Grand Artist in 2017-2018 at Artist Club Philippines.

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ABSTRACT

TECSON, LEANDRO G., Department of Crop Protection, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **January 2020, BIOLOGICAL CONTROL OF *Fusarium solani* USING WILTCURE IN TOMATO (*Lycopersicon esculentum*)**

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Fusarium solani comprises a complex group of species that can cause wilt and root/stem rot in tomato. The use of biocontrol agents is environment-friendly and economically sustainable in agriculture. The study was conducted to characterize the different *Fusarium* isolates namely: P1 Iso.1, P3 Iso.1, P3 Iso.2, and F and to determine the virulence of each fungal pathogen.

Results showed that the most virulent pathogen, P3-Iso.2 was identified culturally, morphologically and molecularly as *Fusarium solani*. The efficacy of WiltCure as biological control agent against *F. solani* was found effective in controlling wilt disease. Lower incidence and severity of disease were found significant in WiltCure treated tomato plants and found comparable to standard fungicide (Benomyl-T7). Treatments with WiltCure also cause significant increase in height treated at rates of 1g/plt (T3) and 0.5g/plt + 1g/plt (T4). No effect was recorded in terms of weight and number of harvested tomato fruits. Thus, WiltCure as biological control agent can be an alternative to chemical control against *Fusarium* wilt disease.

Keywords: Biocontrol; *Fusarium solani*; WiltCure; Tomato

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