ĐÁNH GIÁ TÍNH GÂY BỆNH CỦA NẤM *Ceratocystis* sp. THU TẠI VÙNG TÂY BẮC VIỆT NAM ĐỐI VỚI CÂY KEO LAI

Pathogenicity Assessment of *Ceratocystis* sp. Collected in The Northwestern of Viet Nam on *Acacia* Hybrid

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Abstract

Acacia species are planted in large scale (about 1.3 million hectares, 2015) in Vietnam for the main purposes of pulp-wood, wood-chip and saw-log productions. However, wilt disease caused by *Ceratocystis* sp. has been spread and become a serious threat to these estates. Thus, studies on the management of the wilt disease have been interested. The aim of this study is to characterize the morphological characteristics and pathogenicity of *Ceratocystis* sp. isolates, which were isolated from soil and agro-forestry crops in Northwestern of Vietnam by inoculation on eight-month-old *Acacia* hybrid cutting. 28 *Ceratocystis* sp. isolates which cause wilt disease were from 45 soil samples and 20 plant samples. Among these, there were 6 isolates from agricultural soil, 8 from agricultural plant, 7 from forest soil and 7 from *Acacia* plants. Pathogenicity of 28 *Ceratocystis* sp. isolates was varied and divided into 5 groups: very strong (12 isolates), strong (7 isolates), average (4 isolates), weak (2 isolates) and nil (3 isolates). The very strong pathogen isolates showed a short incubation period, from 4 to 7 days, especially in two isolates C26 and C27 which killed all *Acacia* hybrid cutting after 25 days. The pathogenicity of isolates from sweet potato, India taro and taro is average (4 isolates), weak (2 isolates) or nil (2 isolates). This study is the first report of *Ceratocystis* sp. isolated from soil in the Northwestern of Viet Nam, in which most of them are capable of pathogenicity strong and very strong on *Acacia* hybrid cutting.

Keywords: Acacia, *Ceratocystis* sp., sweet potato, taro, wilt disease

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