P43 Antifungal Activity in Cell-Free Culture Fluid of *Pseudomons solanacearum* Strains Collected from Severe Provinces in the North of Vietnam

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A research collection of *Pseudomons solanacearum* bacteria, a pathogen causing 'bacteria wilt' disease of more than 265 plant species, represented for northern provinces of Vietnam has recently been established and was saved for examination of antifungal activity in their culture fluids. All strains used in this work have been isolated from infected tomato, potato, and groundnut collected from production fields and they express different levels of virulence on their host plants. Cell-free culture fluids of these strains were tested for antifungal activity (to inhibit growth of mycelium and to destroy germination tube of fungal spores) on a number of fungi that either infect or associate with vegetable crops of Solanaceae family (tomato, potato, pepers...), fruit plants (banana), and even well-known by Vietnamese traditional medicine herbal plants belonging to Trifoliatus, Schefflera, Homalomena and Panax genera (Araliaceae family) of which roots are used as a resource of the herbal material. The antifungal activity was found in nearly all strains tested. Result of study on chitin, CMC, tween 80 and casein degradation abilities of the latter suggested that antifungal activity of positively-found strains may be due to their ability of extracelluar chitinase's excretion that

destroy fungal cell wall. Possiblity of utilization of most active strains for protection of fungal disease of economically-important crops has also been speculated.