

Induced resistance and phenolic acid accumulation in biological control of chickpea wilt by *Pseudomonas fluorescens*

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HPLC analysis of chickpea (*Cicer arietinum*) plant at various wilt disease developmental stages challenged with *Fusarium oxysporum* f.sp. *ciceri* indicates the plants contain high amount of phenolics when the seed was treated with *Pseudomonas fluorescens* local isolates Pf-3. This biocontrol bacterial isolate induced the synthesis of specific phenolic acids like salicylic acid, chlorogenic acid etc. with varied amounts at different disease development stages of wilt in chickpea. Vanillic, chlorogenic and hydroquinone were also found higher in plants treated with *Fusarium oxysporum* f.sp. *ciceri*. All the above mentioned phenolics was found higher amount in resistant variety than susceptible variety. The induction of antifungal phenolic acids in chickpea plant in the present investigation due to the application of the local isolate Pf-3 provides a biochemical basis of induced resistance in chickpea against wilt disease.

Key words : Chickpea, *Fusarium oxysporum* f.sp. *ciceri*, HPLC, Phenolics, *Pseudomonas fluorescens*, Salicylic acid

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