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Effect of pod exudates of *Solanum melongina* L. (Brinjal) on conidia development of *Colletotrichum gloeosporioides* causing anthracnose disease

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Studies were undertaken to detect the effect of pod exudates, at the surface of the pods of *Solanum melongina* L. (Brinjal) on the development of the conidia of *Colletotrichum gloeosporioides* that causes anthracnose disease. Three varieties of brinjal *i.e.* 'Padagoda', 'Amanda' and 'Anjali' were selected. Pod exudates of these varieties before and after fractionation in ether, were tested for the conidial germination, length of germ tube and formation of appressoria using a Completely Randomized Design (CRD). Conidial development was significantly (P=0.05) influenced by the pod exudates of variety 'Padagoda', which was a susceptible variety to anthracnose disease than the other two varieties. Drops of the conidia suspension of *Colletotrichum gloeosporioides* and the control (sterilized distilled water), were pin prick inoculated to healthy mature pods of the three varieties and the order of appearance of symptoms and the lesion diameters were measured over time. The Variety 'Padagoda' showed a faster lesion diameter increment than the varieties 'Anjali' and 'Amanda'. Chemical factors found in the water soluble fraction significantly (P=0.05) stimulated the conidial germination than the water insoluble fraction after 22 hours of incubation. The effect of synthetic compounds on the differentiation of these conidia was also investigated. Conidia germination percentage was significantly higher (P=0.05) in 10^{-2} , 10^{-3} and 10^{-4} g ml^{-1} concentrations of Glucose, 10^{-2} g ml^{-1} concentration of Sucrose, 10^{-3} and 10^{-4} g ml^{-1} concentrations of KCl and 10^{-2} g ml^{-1} concentration of $CaCl_2$. Paper chromatography was conducted to separate the compounds in pod exudates which were suspected as stimulatory to the development of the conidia of *Colletotrichum gloeosporioides* and were able to separate but not identified. Results revealed that the stimulatory effect of the pod exudates on the development of conidia could be used to compare the susceptibility / resistance of *Solanum melongina* L. (Brinjal) to disease anthracnose among the tested varieties.

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