

Title Lytic enzymes induced by *Pseudomonas fluorescens* and other biocontrol organisms mediate defence against the anthracnose pathogen in mango

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Abstract

Talc-based bioformulations containing cells of *Pseudomonas fluorescens*, *Bacillus subtilis* and *Saccharomyces cerevisiae* were evaluated for their potential to attack the mango (*Mangifera indica* L.) anthracnose pathogen *Colletotrichum gloeosporioides* Penz. under endemic conditions. The preharvest aerial spray was given at fortnightly and monthly intervals. The plant growth-promoting rhizobacteria *Pseudomonas fluorescens* (FP7) amended with chitin sprayed at fortnightly intervals gave the maximum induction of flowering, a yield attribute in the preharvest stage, consequently reduced latent symptoms were recorded at the postharvest stage. An enormous induction of the defence-mediating lytic enzymes chitinase and β -1,3-glucanase was recorded in colorimetric assay and the expression of discrete bands in native PAGE analysis after FP7 + chitin treatment. The enhanced expression of defence-mediating enzymes may collectively contribute to suppress the anthracnose pathogen, leading to improved yield attributes.