

Efficacy of different Fungicides, Botanicals and Bioagents Against *phoma cajani* and *colletotrichum cajani in vitro*

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Abstract

Pigeonpea is widely grown and is second most important pulse crop in India. It grows either as a sole crop or in mix cropping system. The stem canker of pigeonpea caused due to *Phoma cajani* and *Colletotrichum cajani*. In present experiment chemical, biological and botanical control were studied. Among the fungicides, Thiram, Mancozeb, (0.3%), Carbendazim and Propiconazole (0.1%) have showed hundred per cent mycelium inhibition of *Phoma cajani*. Thiram + Carbendazim (2:1) and Propineb, Thiram (0.3%), Carbendazim and Propiconazole (0.1%) showed maximum mycelial inhibition of *Colletotrichum cajani*. Four botanicals were tested, maximum growth inhibition of *Phoma cajani* was observed with *Mentha piperita* 47.80% and *Colletotrichum cajani* with *Azadirachta indica* 51.54 %. Among the bioagents tested, maximum growth inhibition of *Phoma cajani* was observed with *Trichoderma viride* 77.08% and *Colletotrichum cajani* with *Pseudomonas fluorescence* 85.07 %.

Keywords: *Phoma cajani*, *Colletotrichum cajani*, fungicides, bioagents and botanicals