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FUNGAL PATHOGENS OF BUSH BEAN (*PHASEOLUS VULGARIS*)

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Reduced plant stands and seedling deaths, often resulting in serious crop losses, have attracted increasing attention both in the up-country intermediate and mid-country wet zones. The diseases induced are caused by soil-borne fungal pathogens, some of which have also been detected seed-borne.

Foot rot is a serious condition which becomes noticeable during the second and third weeks after sowing, Affected seedlings wilt, a dry rot is observed in the tap root, smaller roots are killed, and the stem becomes hollow or pithy. *Rhizoctonia solani* was consistently isolated from plants with these symptoms and is regarded as the main causal agent. Other fungi associated with the condition were *Pythium butleri*, *Sclerotium rolfsii*, *Fusarium oxysporum*, *Fusarium solani* and *Fusarium equiseti*. One or more of these fungi were isolated together with *Rhizoctonia solani* from foot rot lesions, the *Fusarium* species being more abundant than *Rhizoctonia solani* in older lesions. However, they were found to be non-pathogenic or only weakly pathogenic in bush beans. *Pythium butleri* caused an easily detectable soft rot. *Sclerotium rolfsii* induced typical collar rot symptoms, sclerotia and mycelial mats being usually present in diseased plants.

Pathogenicity studies indicated *Rhizoctonia solani* as the primary pathogen involved in the foot rot condition although the other organisms also probably contributed to the overall expression of foot rot symptoms.

In seed infections studies, *Colletotrichum dematium*, *Colletotrichum* sp., *Fusarium equiseti*, *Fusarium oxysporum*, *Fusarium semitectum*, *Fusarium solani*, *Macrophomina phaseolina* and *Rhizoctonia solani* have been detected as being seed-borne.