SURVEY, COLLECTION AND ISOLATION OF ISOLATES FUSARIUMUDUM INCITANT OF PIGEONPEA WILT FROM MAJOR PIGEONPEA GROWING AREAS OF ANDHRA PRADESH AND TELANGANA FOR CHARACTERIZATION

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Abstract: Pigeonpea [Cajanuscajan (L.) Millspaugh] is the prominent drought tolerant pulse crop in the tropics and subtropics of the world (Okiror, 1986). Pigeonpea is an often cross pollinated (20-70%) crop with 2n = 2x = 22 diploid chromosome number. It is the fourth important pulse crop in the world and predominantly cultivated in the developing countries of tropics and sub-tropics (FAO, 2014). India is considered as the native of pigeonpea (Van der Maesen, 1980) because of its natural genetic variability available in the local germplasm and the presence of its wild relatives in the country. Pigeonpea wilt caused by Fusariumudum is the most important soil borne disease and was first described in 1906 from Bihar state in India (Butler, 1906). The disease appears in kharif (June) sown young seedlings during august but the highest mortality occurs at flowering and podding stage from November onwards. The yield loss of the crop depends on the stage at which the wilt disease appears. The disease can cause yield loss up to 100, 67 and 30 per cent when wilt occurs at pre-pod, maturity and pre-harvest stages, respectively (Kannaiyan and Nene, 1981). This study includes survey and collection and isolation of isolates for morphological and molecular characterization.

Keywords: Fusarium udum, Isolation, Pigeonpea, Survey

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