**Cultural characteristics, pathogenicity and vegetative compatibility of Fusarium udum isolates from pigeonpea (Cajanus cajan (L.) Millsp.) in Kenya**

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## Abstract

Seventy-nine single-spore isolates of Fusarium udum, the causal agent of wilt disease of pigeonpea, from Kenya, India' and Malawi were characterized according to their cultural characteristics, pathogenicity and vegetative com¬patibility group (VCG). The isolates exhibited high variation in pathogenicity on a wilt-susceptible pigeonpea vari¬ety, and in mycelial growth and sporulation on potato dextrose agar medium. The 79 isolates were categorized into two virulence groups, two groups of radial mycelial growth and four groups of sporulation. Radial mycelial growth showed a moderate negative correlation ($r = -0.40$; $P = 0.01$) with sporulation. However, mycelial growth and sporulation had no correlation with virulence. Pairings between complementary nitrate non-utilizing (nit) mutants of F udum generated on chlorate containing minimal medium revealed that all the isolates belonged to a single VCG (VCG 1) with two subgroups, VCG 1 I and VCG 1 II, Vegetative compatibility was independent of cultural characteristics and pathogenicity. This is the first report of vegetative compatibility in F udum.