## ABSTRACT

Molecular identification and pathological characterisation of fungal pathogens associated with wilting of eggplants (Solanum spp.) is a necessary precondition for efficient disease management and for the development of durable host resistance in eggplant cultivars. A study was carried out to identify and differentiate Fusarium isolates from eggplant fields in the Arumeru district, Tanzania, based on morphological characters, molecular sequence data of the ITS and elongation factor 1-alpha gene exons and introns and pathogenicity tests. Twenty-nine Fusarium isolates were studied. They belonged to the Fusarium oxysporum- (52 %), F. solani- (24 %) and F. incarnatum-equiseti (24 %) species complexes. Pathogenicity tests indicated that representatives of all three species groups were pathogenic to eggplants. The tested members of F. incarnatum-equiseti and F. oxysporum were pathogenic to African eggplant (S. macrocapon, MM 1131) and S. anguivi (N 19). Fusarium solani caused wilting in S. anguivi. Two isolates were identified as Fusarium oxysporum f. sp. melongenae (FOM). This is the first report of Fusarium oxysporum f.sp melongenae and F. solani causing wilting of eggplant in Tanzania and the first report of FIESC causing wilting in African eggplant.

**Key words:** Fusarium equiseti, F.oxysporum, F. solani, Fusarium wilt, Solanum species