PEST PROFILE AND DAMAGE ASSESSMENT ON THREE LAND RACES OF EGGPLANT (*Solanum* spp) IN EKITI STATE, NIGERIA

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ABSTRACT

The environments for growing crops within the next decade are expected to undergo significant abiotic and biotic transformations due to climate change. There is the probability that new economic pests would emerge or known pests become adapted to new crops. Knowledge of invasive pest species, their ability to adapt to a broad range of bio-geographical conditions and the pattern of their population development are essential in developing sustainable integrated management systems. This study evaluated the occurrence, distribution and infestation of insect pests on three varieties of eggplant: *Solanum melongena, S. macrocarpon* and *S. aethiopicum* grown in the nursery and field plots at the Teaching and Research Farm, Ekiti State University, Ado-Ekiti, Nigeria. The crops were planted in a completely randomized design (CRD) at a spacing of 0.5 m by 0.5 m. The pest profiles were monitored at nursery, pre-flowering, flowering and fruiting stages. The major pest in the nursery was the whitefly, *Bemisia tabaci* while grasshoppers, katydids, crickets, caterpillars of various moths, bugs and beetles (adults and larvae) caused damages to the crops in the field. Invasion of mealy bugs and development of *Verticillium* wilt disease occurred at the flowering and fruiting stages. *S. melongena* attracted the widest range of pests followed by *S.aethiopicum* and *S. macrocarpon*. However, *S. aethiopicum* was the most susceptible to damage from the invasive mealy bugs. Detailed knowledge of the optimal period of occurrence of these important pests will aid the farmers' choice of suitable control measures.

Keywords: Occurrence, insect pests, damage, land races, eggplants.