

## **Abstract**

The spider mite *Tetranychus evansi* has a broad range of host plants. Control of *T. evansi* has been a big challenge to tomato farmers due to its fast rate of reproduction, development of resistance to chemical pesticides and its ability to use weeds as alternative hosts when the tomato plants are not available. The aim of the current study was to determine the host plant acceptance and the relative contributions of trichomes in the control of the red spider mite by comparing the survival, development and oviposition rates of the red spider mite on eight tomato accessions. Leaflets from eight tomato varieties were assayed with the spider mites to determine the egg laying capacity and developmental time of the spider mites on the tomato accessions as well as the trichome densities. Densities of trichome types I, IV, V and VI varied among the tomato accessions. Variation in types I, IV and VI accounted for most of the variation in mite responses. The varieties with high densities of types IV and VI had the highest fecundity and mite development did not go beyond the larval stage. The developmental time varied significantly among the tomato accessions. The results indicated that the higher the density of trichome type I the lower the adult survival. The findings indicated possible resistance of some of the tested tomato accessions against *T. evansi* which is partially associated with trichomes types and density.