

Virulence of Root-Knot Nematodes, *Meloidogyne* spp., on Tomato Bearing the Mi Gene for Resistance

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Three species of root-knot nematodes, *Meloidogyne javanica*, *M. incognita* races 1 and 2, and *M. arenaria* race 2 occur in Jordan. These species and their races were identified using morphological characters, the North Carolina differential host test, and SCAR-PCR. The virulence of 83 isolates belonging to *Meloidogyne* species and races was assayed. The virulence assay was based on the isolate reproduction rate on a resistant tomato cultivar Betterboy bearing the Mi gene for resistance, and was compared with that on the susceptible tomato cultivar Rutgers. Three *M. javanica* isolates were highly virulent on the resistant cv. Betterboy as indicated by their high root gall index (4.73) and high reproduction factor (3.73). The horticultural parameters (shoot and root fresh weights and root dry weight) were negatively correlated with the reproduction factor