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Occurrence, prominence and severity of root-knot nematodes (*Meloidogyne* sp) associated with okra in Najaf province

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ABSTRACT:

Root-knot nematode *Meloidogyne* sp were investigated for their occurrence, incidence and severity in 41 okra fields and farms located in six different districts of Najaf. Only two species, *Meloidogyne javanica* and *M. incognita*, were detected in all the districts under this survey. Of all samples identified, 69% were *M. javanica* while *M. incognita* constituted 31%. All the districts were infested with the two nematode species, but none of the fields were infected with mix population of both species. The infection was undetectable in only 2% of the investigated fields. The perineal pattern was analyzed for 80 *M. incognita* and 140 *M. javanica* females. Morphological variations within each nematode species were observed. *M. incognita* showed high dorsal arch that slightly shouldered or squarish in most samples (72%), or medium dorsal arch closely surrounding the tail terminus 24%, while the rest (4%) were rounded with smooth striae. The prineal pattern of *M. javanica* on the other hand was found to possess more variations. Distinct lateral lines were detected in all perineal patterns. High proportion (40%) exhibited low to medium high dorsal arch with moderate wavy to smooth striae and 34% had much higher dorsal arch with squarish, while oval to round shaped with wavy striae were found in the lowest proportion. Most okra fields were highly infested and infection severity was affected by plant cultivar, irrigation method and cropping system. Winter surveys on other vegetable crops might be required to confirm the absence of other *Meloidogyne* sp.

Keywords:

Perineal pattern, Gall index, *M. javanica*, *M. incognita*, Okra.

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