

Survey of plant parasitic nematodes associated with *Beta vulgaris* in Pilibhit district of western Uttar Pradesh

Neha Khan and Tabreiz Ahmad Khan

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ABSTRACT : A survey was conducted in Pilibhit district of Western Uttar Pradesh in order to determine the association of Plant parasitic nematodes with beetroot, *Beta vulgaris* L. A total of 187 soil samples were collected from sixteen different localities namely, Tukunian, Parewa, Saraur, Jaitpur, Shivnagar, Barkhera, Deoria, Bisalpur, Bilsanda, Khandelpur, Banoa, Kadher Chaura, Puranpur, Kiratpur, Dharampur and Jamania and the average nematode population per 200 cm³ soil was determined. The results indicated the presence of thirteen nematode genera viz., *Meloidogyne*, *Rotylenchulus*, *Trichodorus*, *Criconemoides*, *Tylenchorhynchus*, *Longidorus*, *Pratylenchus*, *Tylenchus*, *Ditylenchus*, *Rotylenchus*, *Hoplolaimus*, *Psilenchus* and *Aphelenchus* in Pilibhit district. Amongst these nematode genera, *Meloidogyne* was present in highest number followed by *Rotylenchulus*, *Trichodorus*, *Longidorus*, *Tylenchorhynchus*, *Criconemoides*, *Pratylenchus*, *Psilenchus*, *Tylenchus*, *Hoplolaimus*, *Rotylenchus*, *Ditylenchus* and *Aphelenchus*. The values of absolute and relative frequencies were greatest for *Meloidogyne* followed by *Rotylenchulus*, *Trichodorus*, *Criconemoides*, *Tylenchorhynchus*, *Longidorus*, *Pratylenchus*, *Aphelenchus*, *Tylenchus*, *Ditylenchus*, *Rotylenchus*, *Hoplolaimus* and *Psilenchus*. Similarly the values of absolute and relative densities were highest in *Meloidogyne* followed by *Rotylenchulus*, *Trichodorus*, *Longidorus*, *Tylenchorhynchus*, *Criconemoides*, *Pratylenchus*, *Psilenchus*, *Tylenchus*, *Hoplolaimus*, *Rotylenchus*, *Ditylenchus* and *Aphelenchus*. Prominence value was highest in case of *Meloidogyne* followed by *Rotylenchulus*, *Trichodorus*, *Longidorus*, *Tylenchorhynchus*, *Criconemoides*, *Pratylenchus*, *Tylenchus*, *Psilenchus*, *Hoplolaimus*, *Rotylenchus*, *Ditylenchus* and *Aphelenchus*. The results revealed that the *Meloidogyne*, *Rotylenchulus* and *Trichodorus* were most widespread in beetroot fields across the entire Pilibhit district.

Key Words : Beetroot (*Beta vulgaris*), plant parasitic nematodes, *Meloidogyne*, *Rotylenchulus*, *Trichodorus*, *Criconemoides*, *Tylenchorhynchus*, *Longidorus*, *Pratylenchus*, *Tylenchus*, *Ditylenchus*, *Rotylenchus*, *Hoplolaimus*, *Psilenchus* and *Aphelenchus*.