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Comparative study of *Fusarium oxysporum* f sp. *lycopersici* and *Meloidogyne incognita* race-2 on plant growth parameters of tomato

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ABSTRACT

Many species of soil-inhabiting fungus Fusarium, cause severe yield loss in many crops. Experiments were conducted in net house condition with complete randomized block design to determine the individual effect of different in-oculum levels of root-knot nematode, *Meloidogyne incognita*, Race-2 and *Fusarium oxysporum* f sp. *lycopersici* on plant growth parameters viz., Plant length, fresh and dry weight and number of fruits of tomato var. P21. The experimental results showed that both the pathogens cause significant reduction in plant growth parameters. However, the fungus was not much effective on plant growth parameters in comparison to root-knot nematode. Greatest reduction in plant growth parameters was recorded in plants inoculated with 8000 J_2/Kg soil of *Meloidogyne* in-cognita race 2. The threshold level of root-knot nematode was 1000 J_2/kg soil while threshold level of Fusarium was @ 1 g/Kg soil. Inoculum level of *Fusarium oxysporum* f sp. *lycopersici* and *Meloidogyne in-cognita* race-2 was pathogenic and caused significant reduction at and above 1 g/kg soil and 1000 J_2/Kg soil respectively.

KEYWORDS

Fusarium oxysporum f sp. *lycopersici; Meloidogyne incognita* Race-2; Tomato and Threshold Level

Cite this paper

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