

**Research Article****Management of Fusarium Wilt of Indian Dill (*Anethum graveolens* var *sowa* Roxb. ex, Fleming) Through Integrated Application of Neem Cake, Biocontrol Agents and Fungicides****Pokhar Rawal and JP Taterwal**

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**Abstract**

Integrated application of neem cake, biocontrol agents and fungicides were evaluated for the management of wilt (*Fusarium solani*) disease of Indian dill (*Anethum graveolens* var *sowa* Roxb. ex, Fleming) in sick plots during Rabi season 2015-16 and 2016-17. Soil application of neem cake mixture enriched with *Pseudomonas* + *Trichoderma* bio-formulation (2%) @ 100g sqm<sup>-1</sup> at sowing + seed treatment with carbendazim @ 0.1 per cent and application of sand mixed tebuconazole 25 EC @ 0.1 per cent followed by light irrigation at 45, 60 and 75 days after sowing was best effective and resulted minimum wilt disease (16.2%), maximum control (81.6%) with maximum seed yield (11.6q ha<sup>-1</sup>) compare to rest of the treatments and control. Similarly, soil application of neem cake mixture enriched with *Trichoderma* formulation (2%) @ 100g sqm<sup>-1</sup> at sowing + seed treatment with carbendazim @ 0.1 per cent and application of sand mixed tebuconazole 25 EC @ 0.1 per cent followed by light irrigation at 45, 60 and 75 days after sowing was next best treatment with 26.4 per cent wilt disease, 70.1 per cent disease control and seed yield (10.1 q ha<sup>-1</sup>). Enumeration of rhizospheric population of *T. viride*, *P. fluorescens* and pathogen revealed that disease suppression was mainly due to reduction in population count of *F. solani* by the biocontrol agents.

**Key words:** *Anethum graveolens* var *sowa*, carbendazim, Indian dill, *Fusarium solani*, neem cake, *Pseudomonas fluorescens*, *Trichoderma viride*, tebuconazole, wilt

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