

IN VITRO EVALUATION OF DIFFERENT FUNGICIDES AND ORGANIC AMENDMENTS AGAINST *RHIZOCTONIA BATATICOLO* CAUSING DRY ROOT ROT OF GROUNDNUT

Y. Sindhu Keerthana¹, T. Srinivas², R. Sarada Jayalakshmi Devi³ and A. SriVidhya⁴

¹Department of Plant Pathology, S.V. Agricultural College, Tirupati, 517502, Acharya N. G. Ranga Agricultural University, Lam, Guntur, 522034, Andhra Pradesh, India

²Krishi Vigyan Kendra, Banavasi, Kumool, 518360, Acharya N. G. Ranga Agricultural University, Lam, Guntur, 522034, Andhra Pradesh, India

³Department of Plant Pathology, S.V. Agricultural College, Tirupati, 517502, Acharya N. G. Ranga Agricultural University, Lam, Guntur, 522034, Andhra Pradesh, India

⁴Department of Genetics and Plant Breeding, Institute of Frontier Technology, RARS, Tirupati, 517502, Acharya N. G. Ranga Agricultural University, Lam, 522034, Andhra Pradesh, India
Email: thumati28@gmail.com

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Abstract: Dry root rot of groundnut, a fungal disease more prevalent under rainfed conditions and is capable of causing considerable loss in the yield when left unmanaged. In order to find out an effective input for managing the disease, three organic amendments (neem cake, castor cake and karanj cake) at three different concentrations of their aqueous extracts (5 %, 10 % and 15 %) and six different fungicides with contact, systemic and combination mode of action *viz.*, tebuconazole, difenconazole, mancozeb, carboxin, carbendazim 12 % + mancozeb 63 %, tebuconazole 50 % + trifloxystrobin 25 % were screened for their efficacy against the pathogen at various concentrations *in vitro* by poisoned food technique. Among the organic amendments tested, karanj cake showed maximum inhibition of pathogen growth *i.e.*, 13.56 per cent and 32.55 per cent at 10 per cent and 15 per cent concentrations respectively and no inhibition at 5 per cent concentration whereas neem and castor cakes did not show any inhibition at all the concentrations tested. Among the fungicides mancozeb (2500, 3000 and 3500ppm), carbendazim 12% + mancozeb 63% WP (2500, 2000 and 1500ppm), tebuconazole 50%+ trifloxystrobin 25% 75 WG (1500, 1000 and 500ppm,) recorded complete inhibition of the pathogen at all the concentrations tested.

Keywords: Groundnut, Dry root rot, Organic amendments, Fungicides, *R. bataticola*

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*Corresponding Author