

Integrated management of soil borne diseases of Groundnut in coastal ecosystem of Odisha

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Groundnut (*Arachis hypogaea* L.) is an important food and oil seed crop worldwide. Seed and soil borne diseases have been recognised as major constraint limiting groundnut production. Present investigation aimed at management strategies in an integrated approach in field conditions to manage soil borne pathogens. In field experiment conducted during *Kharif* 2016, tebuconazole was most effective for seed treatment that reduced both stem rot by 2.13% and collar rot by 1.73% incidence significantly and improved germination percentage 85.00% and pod yield 1688kg/ha. Tebuconazole seed treatment is found effective in reducing collar rot by 1.67% ,stem rot by 2.00% and improved pod yield up to 1967 kg/ha during *Rabi*-summer 2017 .The next best chemicals were carboxin +thiram followed by carbendazim and mancozeb. Seed priming with *Trichoderma viride* is more effective than *Pesudomonas fluorescens* which are at par with cultural practice i.e., deep summer ploughing with MB plough in reducing soil borne diseases. Hence,soil borne diseases can be managed by integrating cultural practices like deep summer ploughing by MB plough, seed treatment with tebuconazole 2 DS @1.5 g/kg seeds ,followed by soil application of *Trichoderma* @4 kg/ha enriched in 250 kg FYM at 35 and 70 DAS would be effective against reducing soil borne pathogens viz collar rot and stem rot disease in groundnut.

Key words: MB Plough, fungicide, bioagent, *Arachis hypogaea*
