

Identification of Resistant Sources of Different Cultivars of Castor Against *Macrophomina Phaseolina*

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ABSTRACT

Root rot caused by *Macrophomina phaseolina* is one of the most important disease of castor causes significant yield losses. Therefore, the current study was carried out in a greenhouse at ICAR-Indian Institute of Oilseeds Research Rajendranagar, Hyderabad to screen various parental lines/advanced breeding material for their resistance against castor root rot that can be exploited in cultivar improvement. Forty eight parental lines/advanced breeding material of castor were evaluated in order to discover new and improved sources of resistance against root rot under sick pot conditions. Out of that, parental line *i.e.*, ICS-415 was found to be resistant (d• 10 %) to root rot infection. Ten were found to be moderately resistant (11-20 %) another 10 parental lines were moderately susceptible (20-30 %), twenty one were found to be susceptible (30-50 %) and remaining were highly susceptible (> 50 %) to the root rot disease. Root rot infection affected all of the parental lines to some extent, and none of the entries were completely free from the disease incidence.

Keywords: *Castor (Ricinus communis L.), Parental lines/advanced breeding material, Root rot and Screening*