Mycopath (2005) **3**(1&2)**:** 33-36

Population dynamics interaction of *Macrophomina phaseolina* for mortality in sunflower

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Abstract

Host-pathogen interaction of sunflower for *Macrophomina phaseolina* (Tasi) Goid was expressed in terms of percent mortality in plant population instead of aggressiveness of the isolate. Mortality recorded in sunflower hybrids 53% in Parsun-1, LG-Sloble (41%), and 50% in Tarnab-713. The test isolate of *M. phaseolina* MP8 caused 50% mortality followed 48% by isolate MP61, and 47% by MP70a. In various sets of treatment, plant mortality was observed at vegetative and reproductive stages of sunflower. Mortality recorded even at higher population dynamics (93%) was after the germination of plant under naturally charcoal rot infected field conditions. The nature of plant mortalities observed during pre-and post-emergence phases of plant indicates that strains of the *M. phaseolina* have specificity in their pathogenic behavior.

Key words: *Macrophomina phaseolina*, sunflower, charcoal rot, host-pathogen interaction