

Standardization of streptomycin and lactic acid use to obtain contamination free isolation of *Catenaria anguillulae* without loosing its virulence

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ABSTRACT: *Catenaria anguillulae* is a facultative endoparasite of nematodes found widely distributed in agricultural soils. Eleven isolates of *C. anguillulae* were isolated from soils collected from different field crops/fruit trees/fallow fields, using live juveniles of *A. tritici* as bait. All the eleven isolates of *C. anguillulae* were isolated following selective isolation technique and purified by streaking a single infected J₂ of *A. tritici* colonized by single zoospore into each of several Petri-dishes containing 0.3% beef extract medium. Thus, pure colonies of eleven isolates of fungus were obtained. The cultures were maintained by regular transfer of each isolates on culture media at weekly transfer. Among the eleven isolates of *C. anguillulae*, the isolate (no.3) showed the maximum growth and used in further experiments to standardize use of streptomycin sulphate and lactic acid for isolation of the fungus without loss in its virulence as the zoospores are highly sensitive to higher doses of the antibiotic as well as lactic acid and Streptomycin sulphate. The parasitism of second stage Juveniles of *A. tritici* by *C. anguillulae* and showed that the per cent mortality of the motile J₂s of *A. tritici* varied with increase in concentrations of streptomycin sulphate. Further, it was found that the concentrations varying from 0-10ppm did not affect mortality of the motile J₂s of *A. tritici*. Similarly, lactic acid also affected the parasitism of J₂s of *A. tritici* by *C. anguillulae* revealed that the percent mortality of the motile J₂s of *A. tritici* varied with increase in concentrations. Further, it was also found that the concentrations varying from 0-30ppm did not affect mortality of the motile J₂s of *A. tritici*. Ultimately it was found that the beef extract medium supplemented with streptomycin sulphate (10ppm) and lactic acid (30ppm) exhibited control over bacterial contamination to the great extent following streaking of the freshly infected motile J₂s of *A. tritici* after 24- 48 h of streaking and showed good growth of colonies of the fungus along and at the tip of the streak without contamination. Such colonies can be used for maintenance of the fungus on culture media.

Key Words: *Catenaria anguillulae*, contamination, lactic acid, streptomycin sulphate, virulence.