

## البحث السادس

**Nada F. Hemeda** and El Deeb M.A. (2019). Evaluation of biological Control potential for different *Trichoderma* strains against Root-Knot Nematode *Meloidogyne javanica*. Journal of Advanced Laboratory Research in Biology. 10 (1): 16-22.

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<b>Title</b>	<b>Evaluation of biological Control potential for different <i>Trichoderma</i> strains against Root-Knot Nematode <i>Meloidogyne javanica</i>.</b>
<b>Date</b>	<b>2019</b>

### ABSTRACT

Twenty strains of four *Trichoderma* species (*Trichoderma harzianum*, *Trichoderma viride*, *Trichoderma koningii* and *Trichoderma asperellum*) were evaluated for its potential to control the root-knot nematode *Meloidogyne javanica*. Culture filtrates from *Trichoderma* strains were tested in 24-well tissue culture plates for effects on *Meloidogyne javanica*. Chitwood egg hatch and mobility of hatched second-stage juveniles (J2) were evaluated, all the twenty *Trichoderma* strains showed the ability to colonize *M. javanica* separated eggs and second stage juveniles (J2) in sterile *in vitro* assays. *T. asperellum* possess the strongest egg-parasitic ability and very effective against 2nd stage larvae of *M. javanica*.

In this investigation, randomly amplified polymorphic DNA (RAPD) markers was used to estimate the genetic variations between four strains of *Trichoderma asperellum* (KC898190, KC898191, KC898192 and KC898193) which were previously isolated from the rhizospheres of different plants growing in Fayoum Governorate, Egypt as a new strain of *T. asperellum* in Egypt. RAPD assay using 6 random primers identified *T. asperellum* strains with 5 specific unique markers.