

NEW ESTIMATION METHOD FOR THE DENSITY OF ENTOMOGENOUS  
NEMATODES (RHABDITIDA : STEINERNEMATIDAE) IN THE SOIL

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The use of entomogenous nematodes (Steinernematidae) as biological control agents against soil-inhabiting pests requires a simple method for calculation of the

mediately to detect the number of nematodes they contained. For accuracy only first generation (preimaginal stage of giant generation) should be considered.

Table 1  
Number of *Steinernema feltiae* nematodes recovered  
from dissected *Galleria* larvae in potted soil

Number of nematodes placed in pots	Period of nematode exposure to <i>Galleria</i> larvae (days)					Recovered nematodes (%)
	0-4	4-8	8-12	12-16	16-20	
150*	43	19	10	4	4	53.3
1 500	376	135	124	63	13	47.6
15 000	3 662	1 247	797	279	33	40.2

\* in fifteen pots

An important question is what percentage of the nematode population occurring in the soil may infect a host? This question deals with the biological potential of the applied agent. The method described above may be useful for estimation of the number of juveniles able to infect the insect. Also, the biological potential of entomogenous nematodes applied as a factor of integrated pest management could be determined.

Some nematodes species do not infect *Galleria* larvae readily. Beside of this, we suppose that this method may be better than the extraction method used to determine the biological potential of entomogenous nematodes. The extraction method is indiscriminate and is unable to indicate those individuals actually capable of infecting a host.

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