

(*Pratylenchus loosi*)
efficiency impact of several important products of nematicide on biological control
of tea root lesion nematode (*pratylenchus loosi*)

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99/1/25:

Pratylenchus loosi

97/1/93

P. loosi

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.Pratylenchus loosi

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seraji1167@gmail.com:



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Pratylenchus loosi Loof, 1960
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 .(1386 1381 1381 Gnanapragasam, 1986)
 (*P.loosi*)
 (*Rhizoctonia, Sclerotium, Fusarium*)
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 .(1383
 .(Sasser and Freckman, 1987) 12/3
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 (*oplismenus composites*)
 .(1389)
 (*P. loosi*)
 .(1386 Campos *et al.*, 1990)

Li *et al.*, 2006;)

M. incognita

(Okada and Harda, 2007

(Khan *et al.*, 1966)

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(Devakumar *et al.*, 1985)

(ecdysone)

Koul *et al.*)

(al, 1986 , Van Rande and Roitberg, 1987

Meloidogyne javanica

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(Coolen and d'Herde, 1972)

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(*Nicotiana tobacum*)

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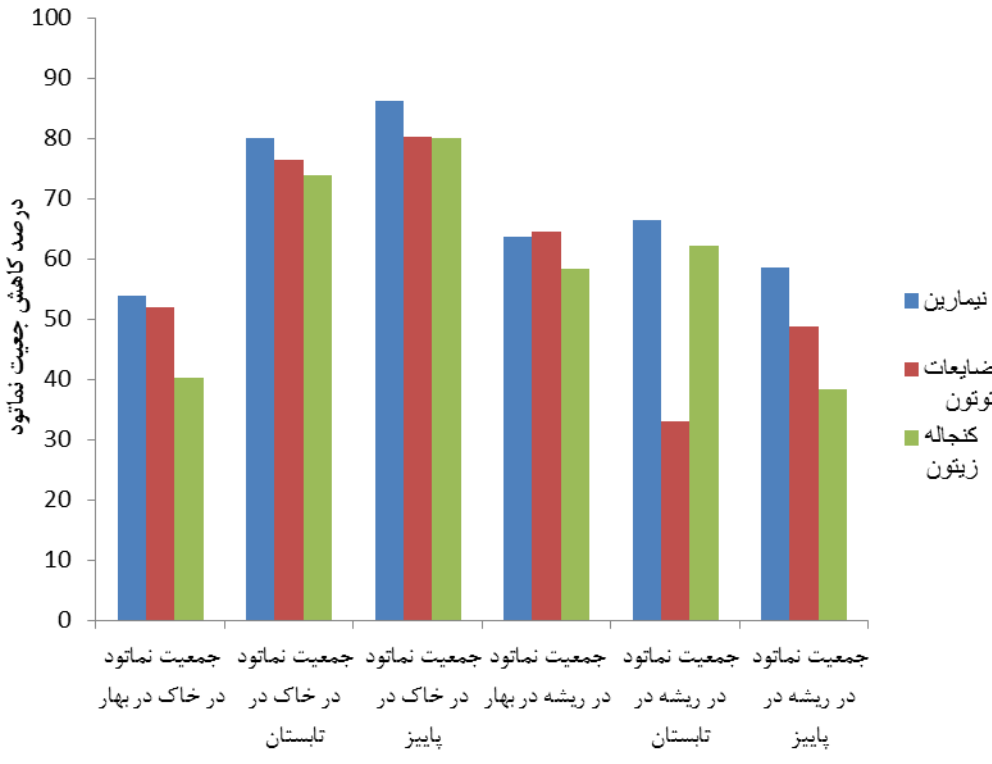
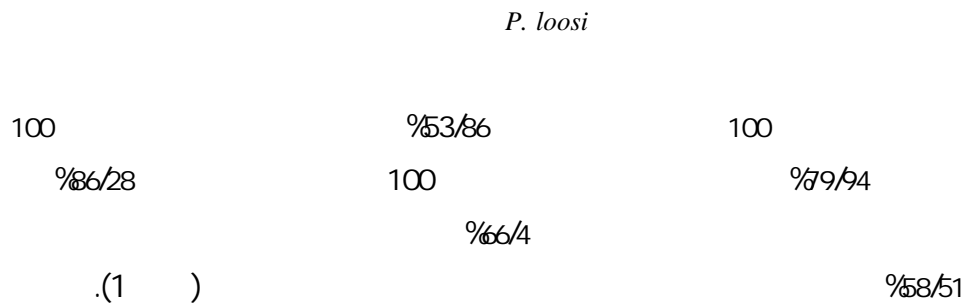
P. loosi

(Bartlett, 1951)

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P. loosi -1

Fig. 1. Percentage of delinng population of nematode caused by the treatments in *Pratylenchus loosi* infected environment

P. loosi

(Guiran *et al*, 1980)

(Jothi *et al*, 2004)

Crossandra *Pratylenchus delattrei*

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P. loosi

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Pratylenchus loosi

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Table 1. analysis of variance of quantitative indices in *Pratylenchus loosi* tea root infected environment

Sources of variation	Degree of freedom	Means square								
		(kg/ha) Green leaf yield spring	(kg/ha) Green leaf yield sum	(kg/ha) Green leaf yield autumn	100 population in spring in 100gr soil	100 population in summer in 100gr soil	100 population in autumn in 100gr soil	Population in spring in 1gr root	Population in summer in 1gr root	Population in autumn in 1gr root
Block	2	169.64 ^{ns}	233.43 ^{ns}	254.57 ^{ns}	17.32 ^{ns}	26.2 [*]	25.76 ^{ns}	35.2 ^{ns}	42.07 ^{ns}	85.97 ^{ns}
Treatment	3	25.35 ^{ns}	42.13 ^{ns}	24.01 ^{ns}	20.76 ^{ns}	168.33 ^{**}	209.88 ^{**}	166.04 [*]	235.18 [*]	125.45 [*]
Error	6	157.24	62.68	66.48	6.6	2.96	7.46	23.44	29.24	24.21
Total	11	-	-	-	-	-	-	-	-	-
Coefficient of variation	-	32.42	27.93	32.77	19.15	9.86	17.06	17.9	16.16	16.66

** means significant at level 1% and * means significant at level of 5 % and ns means non significant

ns * **

Pratylenchus loosi

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Table 2. Analysis of variance of quality indices in *Pratylenchus loosi* root infected environment

Sources of variation	Degree of freedom	Means square		
		Solid percentage	Humidity percentage	Tannin percentage
Block	2	0.0007 ^{ns}	0.006 ^{**}	0.003 ^{ns}
Treatment	3	3.66 ^{**}	3.75 ^{**}	0.01 [*]
Error	6	0.001	0.0001	0.002
Total	11	-	-	-
Coefficient of variation	-	0.11	0.01	0.51

ns * **

** means significant at level 1% and * means significant at level of 5 % and ns means non significant

Pratylenchus loosi

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Table 3- Comparison of mean quality indices in *Pratylenchus loosi* contaminated environment

Treatment	Qualitative indicators tested		
	Solid percentage	Humidity percentage	Tannin percentage
Control	30.74 ^A	69.22 ^D	10.47 ^A
Neemarin	29.71 ^B	70.28 ^C	10.4A ^B
tobacco waste	28.06 ^D	71.93 ^A	10.33 ^B
Olive meal	29.32 ^C	70.66 ^B	10.47 ^A

LSD

According to the LSD test, the means with similar letters do not differ significantly at the level of 1%

References

- 306 . () .1377 . .
- 278 : .1380 .
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 (Pratylenchus loosi)
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 (Oplismenus compositus) .1385.
 (Pratylenchus loosi)
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(Pratylenchus loosi) .1386.
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(Oplismenus compositus) .1389.
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(Root-knot Nematode) .1379.
 .48-43 (31)8 :

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 (Pratylenchus loosi)
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(Azadirachta indica) .(1387) . . .

.24-3:19. :(Meloidogyne sp)

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Efficiency impact of several important products of nematicide on Biological Control of Tea Root Lesion Nematode (*Pratylenchus loosi*)

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ABSTRACT

Pratylenchus loosi, the root lesion nematode, is the most important cause agent damaging tea crop in Iran and the world. This research was carried out with the aim of evaluating the effectiveness of nematicide organic amendments at infected level with a population above the injury threshold, four treatments in three replications with a randomized complete block design was done at Fashalem tea station in Gilan province. The results showed that in the infected environment with a population higher than the damage threshold, only the moisture content index, treatment of tobacco waste with 71.93% was the best treatment. In quantitative indices such as nematode population in soil and roots in infected *P. loosi* environments, neemarin(neem extract) treatment was most effective. There was no significant difference observed between the treatments in green leaf index, but the increase in yield was observed in comparison with the control. The results of this study showed that the use of neemarin and tobacco waste can improve the quality indices in addition to reducing the population of nematode in soil and root and as an important biological factor in controlling nematodes.

Key Word: Biological control ,Organic nematicide products, *Pratylenchus loosi* , Tea.

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