



INDIAN AGRICULTURAL RESEARCH INSTITUTE

TESTING OF NEEMNEMATE 300 ppm as SOIL APPLICATION AGAINST ROOT-ROT NEMATODE (*Meloidogyne incognita*) and OTHER PLANT PARASITIC NEMATODES IN OKRA (BHINDI)

Compiled by:
Dr. Ilangovan Ramasamy
Scientist
AgriNeem

The trial was conducted in 3X2 meter plots having mainly root-rot (*Meloidogyne incognita*) and reniform nematode (*Rotylenchus reniformis*) populations other Phytonematodes like *Tylenchorhynchus* spp., *Helicotylenchus* spp., *Hopolaimus* spp. were also present.

Treatments:

1. Three doses of NeemNemate-300 viz., 10, 20 and 40 KG/ha
2. Carbofuran @ 2KG a.i/ha treated and
3. Untreated control.

Treatments are imposed at the time of sowing the okra seed.

Replication: 4

Soil sample was sub-sampled at 100 g per plot, nematodes were extracted by Cobb's sieving and decanting process.

The data were analyzed and statistically presented here under,

Table 1. Effect of NeemNemate-300 on different nematodes associated with Okra (Bhindi).

			Population of Nematodes/100 G soil			
Treatments	Dose (kg/ha)	Root Knot Index	Root knot	Reniform	Other Nematode	Yield/Plot (g)
NeemNemate 300	10 KG/acre	3.00	244 (15.57)	1450 (38.07)	208 (13.76)	4256.00
NeemNemate 300	20 KG/acre	2.50	230 (15.12)	1320 (36.26)	194 (13.75)	4413.00
NeemNemate 300	30 Kg/ac	1.50	184 (13.54)	1134 (33.58)	121 (9.55)	4663.00
Carbofuran		1.50	144 (11.96)	931 (30.39)	75 (6.62)	4288.00
Control		4.50	481 (21.88)	2125 (46.36)	258 (15.96)	3825.00
CD			2.43	5.89	6.77	156.14
Initial Populations			150	650	90	

CD* = Critical Difference at 5%. Statistically significant.
Figure in parenthesis are square root transformed values

Inference:

1. NeemNemate-300 reduced nematode populations and increased yield significantly.
4. Root-knot index at the highest dose of 40 kg/ha was similar to that of Carbofuran @ 2kg a.i/ha) treated control.
5. Soil populations of root-knot, reniform and other plant parasitic nematodes were also at par with carbofuran control at the highest dose of Neemnemate-300.
6. Yield increments were observed in all the plots received neemnemate-300 granules with respect to control.

CONCLUSION

NeemNemate-300 is effective in reducing root-knot (49-70%), reniform (32-56%) and other plant parasitic (19-71%) nematodes and highest dose @ 30 kg/acre is as effective as carbofuran.

Research Supervised by: Dr.Vijayalakshmi, Senior Scientist, Nematology Division I.A.R.I New Delhi

166 Lawrence Road Salem New Hampshire 03079 USA
E-mail: rama@agriinfotech.com