

# Neemate-10G

Natural Nematicide



A novel granular pesticide of botanical origin, used for the control of soil borne pests including nematodes. It is recommended for soil application. The active ingredients include a careful blend of neem seed constituents collectively called neem bitters. They are coated or absorbed on to a selective carrier material of agricultural origin, so that the persistency and stability of the active compound is enhanced in this medium. The mode of action is both systemic and contact type.

#### Advantages:

- Can be used as a substitute for Methyl Bromide for nematode management.
- Can be used as a component in Integrated Pest Management (IPM).
- Ready to use. (No mixing required!)
- Safer to handle as particles settle quickly and there is no spraying.
- Requires simple application equipment, such as seeders or fertilizer spreaders.
- More persistent than wettable powders (WPs) or emulsifiable concentrates (ECs).

#### Nutrient Content

Organic Matter	80% - 85%
Nitrogen	2% - 2.75%
Phosphorus	2% - 2.75%
Potassium	1% - 1.5%

**Active Ingredients:**

Azadirachtin and other Neem based triterpenoids.

**Effectiveness:**

Widely recommended to control white grubs, nematodes and other soil borne pathogens.

NEEMATE-10G is a neem based nematicide which can be used to control root-knot nematodes affecting fruit crops, vegetable crops or field crops. The chemical pesticide Carbofuran is widely used to control nematodes. However, Carbofuran has a very short effective period, moreover it is banned in many countries because of its adverse effect on the environment and its inherent toxicity.

A botanical pesticide, NEEMATE-10G is free from the toxicity of Carbofuran. Comparative bio-efficacy of NEEMATE-10G and Carbofuran for control of root-knot nematode in chick pea (3 years mean).

Treatment	Root-Knot Index (RKI 0-5)*	Yield (Kg/ha.)
NEEMATE-10G (10 kg/ha)	2.25	3237
Carbofuran-3G (1kg a.i./ha)	2.61	2977
Control	3.28	2774

\*1 = Free; 5 = Maximum disease intensity.

**Application Guidelines:**

It is essential to apply NEEMATE-10G before pests attack the crop. This prophylactic action results in built-in protection of crop for an abundant harvest.

**Methodology/Dosage:**

Apply @ 10 kg/ha for nursery pest management.  
Apply 1-2 days before sowing as a prophylactic dose.  
Apply to the soil @ 10 kg/ha field crop .  
Apply before transplanting as a prophylactic dose.

**Packaging:**

25 kg HDPE/LDPE bag  
4 kg bag

**Storage:**

Store in a cool, dry place away from direct sunlight.

- Evaluation of bionematicides Neemate 10G and Samrat for management of root-knot nematode, *M. incognita* race-II in pomegranate field.

Scientists involved: Prof. S.A. Pawar, Dr. N.L. Mhase and Prof. D.B. Kadam

Results:

The pre treatment root-knot nematode population in the soil ranged from 460 to 540 nematodes (J2)/200 cm<sup>3</sup> of soil and number of root galls from 18 to 23/5 g roots.

It could be seen from the Table 32 and 35 that all the treatments were found significantly superior to an untreated control in reducing the root-knot nematode population and number of root galls/5g roots and increasing the yield at termination of the experiment.

Effect of Neemate and Samrat on the root-knot development of *M. incognita* in chickpea plant.

Treatment	Nematode population		No. of galls/ root system	No. of eggs/ eggmass	No. of eggmasses/ root system
	Soil	Root			
Samrat	11600	172	82	75	60

Evaluation of bionematicides Neemate 10G and Samrat (organic manure enriched with bionematicide) for the management of Phytonematodes in banana.

Table 1 Effect of bionematicides on the biometric characters of banana

Treatments	Length of plant (cm)	Girth of plant (cm)	Weight of root (kg)	Weight of rhizome (kg)
T3 Nemate 10 G @ 2g a.i./ plant	3.92	43.68	0.51	2.78
T6 Samrat @ 750 g/ plant	3.94	43.44	0.57	1.95
T8 Control	3.68	39.13	0.29	0.71
CD	NS	3.39	0.31	1.35

Table 2 Effect of bionematicides on the yield of banana

Treatments	No. of bunches	No. of fingers	Weight of bunches (kg)	Yield q/ha
T3 Nemate 10 G @ 2g a.i./ plant	4.13	34.01	7.07	176.75
T6 Samrat @ 750 g/ plant	4.00	32.17	7.54	188.5
T8 Control	3.56	29.00	5.13	128.25
CD	NS	4.11	0.90	

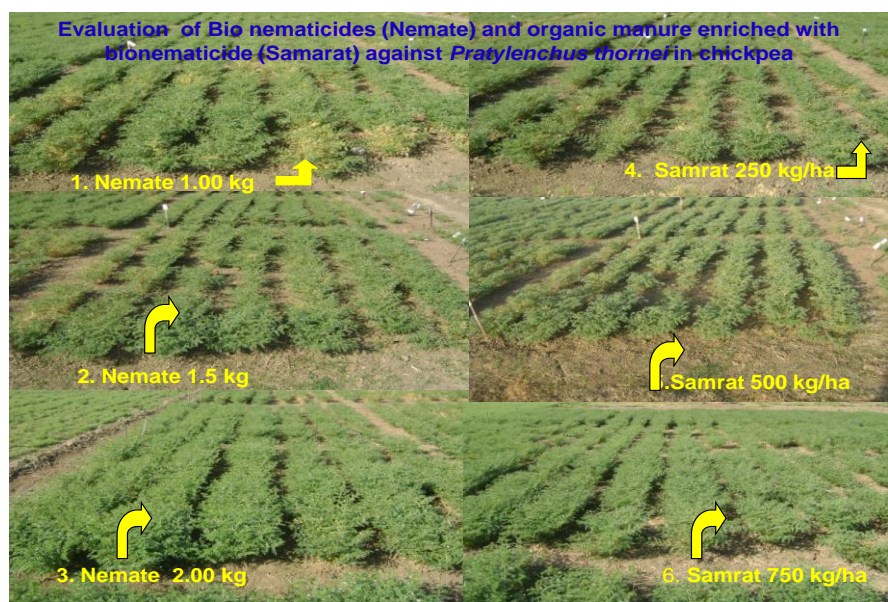
Table 3 Effect of bionematicides on the nematode population in the root rhizosphere of banana.

Treatments	Lesions on Rhizome (10 g)	Lesions on Root (10 g)	Root-knot index	Population in 200 g soil	Nematode population in 5g feeder root
T3 Nemate 10 G @ 2g a.i/ plant	33.66 (5.80)	30.09 (5.49)	1.89 (1.70)	81.76 (9.04)	9.15 (3.03)
T6 Samrat @ 750 g/ plant	25.64 (5.06)	28.60 (5.35)	1.73 (1.65)	87.41 (9.35)	9.95 (3.15)
T8 Control	66.57 (8.16)	35.86 (5.99)	2.76 (1.94)	224.53 (14.98)	104.70 (10.23)
CD	1.98	NS		(0.82)	(0.70)

Evaluation of Bio nematicide, Neemate 10 G and Samrat ( Organic manure enriched with Bio- Nematicide ) for management of Lesion nematode ( *Pratylenchus thornei*) effect of Neemate 10 G and Samrat on growth parameters and nematode (P. thornei) population on Chickpea

Table : Effect of Neemate 10 G and Samrat on growth parameters and nematode (P. thornei) population (2010-2012)

Treatments	Growth parameters			Nematode population		
	Germination count	Growth score (0-10 scale)	Yield q/ha	Initial (Soil / 200 cm <sup>3</sup> )	Final	
					Soil/ 200 cm <sup>3</sup>	Root/5 g
Neemate 10G	91.46	1-1	6.30	247	222	21.25
Samrat	88.00	1-1	6.42	562	220	24.00
Untreated control	83.99	0-0	5.47	507	600	26.25
SEm±	NS	NS	0.593	NS	-	-
CD % (P=0.05)	-	-	1.746	-	-	-



## Certificate of Analysis

### NEEMATE 10G

#### **Neem Based Nematicide**

Batch No. : 074  
Date of analysis : 01/08/2014  
Mfg. Date : 01/08/2014

<b>Sr. No.</b>	<b>Characteristic</b>	<b>Requirement</b>	<b>Results Obtained</b>
1	Appearance	Blackish Granules	Complies
2	Active Ingredient – azadirachtin	800 ppm or 0.08%	Complies
3	Organic Matter	72 %	Complies
4	Nitrogen	2.4 %	Complies
5	Phosphorus	2.45%	Complies
6	Potassium	1.1%	Complies

**Remark:** The above product complies as per specification.

**For Nico Orgo Manures**

**Quality Control Dept.**

Chemist

**For Nico Orgo Manures**

**Partner**

## MATERIAL SAFETY DATA SHEET

### Neemate 10 G

#### \*\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*\*

Name: **Neemate10G (Neem treated Oil Cake Granules)**

Company Identification:

**Nico Orgo Manures**

**Opp.railway station,**

**Dakor-388225,**

**Gujarat, India.**

**Tel. 0091 2699 244403**

**Fax. 0091 2699 244903**

#### \*\*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*\*

Extract of Neem Seed & coated other inert granules.

Note: Confidential business information has been omitted.

#### \*\*\*\*\*SECTION 3 HAZARDS IDENTIFICATION \*\*\*\*\*

Fire: Non inflammable. Non hazardous.

Other Hazards: Hazardous polimerisation will not occur.

Concentration of active ingredient (a.i.) 0.1 %(min)

#### \*\*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*\*

Take the person to fresh air & wash the contact parts of the body with soap & water. No other specific measures required since it is non toxic.

#### \*\*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*\*

Non flammable

**\*\*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*\***

Not applicable as being in granule form

**\*\*\*\*\* SECTION 7 – STORAGE & HANDLING \*\*\*\*\***

Store in a cool, dry, & covered place. No other special arrangements required.

**\*\*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\*\***

Does not require any special measures however it is advisable to wear gloves.

**\*\*\*\*\* SECTION 9 – PHYSICAL IDENTIFICATION \*\*\*\*\***

Appearance : Dark brown granules with typical organic & Neem odour.

**\*\*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*\***

Stable and non reactive

**\*\*\*\*\* SECTION 11 – TOXICITY DATA \*\*\*\*\***

Non Toxic

**\*\*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\*\***

Eco friendly and highly biodegradable

**\*\*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\*\***

To be disposal as per the guidelines of the local authorities. However, does not require special steps.

**\*\*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\*\***

Safe for transportation (Non-Hazards)

**\*\*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*\***

Being non toxic & non corrosive normal precautions to be adopted as suggested by the regulatory authorities.

**\*\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*\***

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Nico Orgo Manures assumes no legal responsibility for use or reliance on these data.