

## **Efficacy of bio-nematicide in controlling of root-knots nematodes on cotton under glasshouse conditions (2018/2019)**

AIM: To compare novel treatments versus current nematicides and bio-nematicides for control of root knot nematodes of cotton

### **TREATMENTS:**

- I. Untreated control
- II. Nematicur 400 - Villa Crop - Active ingredient: Fenamiphos – organophosphate
- III. Counter
- IV. Vydate® SL - DuPont SA - Active ingredient: Oxamyl – Carbamate
- V. Curater
- VI. Nematicur 400 and Vydate® SL
- VII. Eco- T
- VIII. C – rosea
- IX. Seed X

### **METHOD**

- A glasshouse experiment was conducted in Rustenburg during 2018/19 season.
- Cotton cultivar, Candia BGRF, was used for the experiments.
- Trial in soils that have high infestations of *Meloidogyne* spp exist.
- The trial was a randomized block design with 9 treatments, replicated 4 times.
- Nematode counts were done at first true leaf, first square, first flower, first boll opening and 50% boll opening.
- Seed cotton yield was determined at harvest.

- **Table 1:** Efficacy of different treatments on the control of *M. incognita* in cotton under glasshouse conditions

Treatments	Mean <sup>1</sup>
Control	29 a
EcoT	19 b
CRosea	18 b
Counter	13 c
SeedX	11 dc
Curater	10 dc
Vydate	8 d
Nemacur	5 e
Nemacur and Vydate	4 e
LSD	3.1405
CV (%)	48.28584
P value	<.0001

<sup>1</sup>Means with the same letter are not significantly different ( $p < 0.05$ )

**Table 3.1** Seed cotton yields obtained from the different treatments under field conditions

Treatments	Mean (g/plant)
Nemacur and Vydate	36 a
Vydate	32 ba
Curater	28 ba
Nemacur	26 b
Counter	25 b
SeedX	15 c
EcoT	6 dc
CRosea	5 dc
Control	5 d
LSD	9.764
CV (%)	33.88050
P value	<.0001

<sup>1</sup>Means with the same letter are not significantly different ( $p < 0.05$ )

