

SOUTH AFRICAN SUGAR INDUSTRY  
AGRONOMISTS' ASSOCIATION

Code: NT 36/83/R  
Cat No: 1456

Title: Nematicide screening on very weak sands

1. Particulars of the project

This crop	1st ratoon	Soil analysis:	Date: 5.12.83								
Site	Emoyeni	pH	O.M%	Clay%	P.O.I.						
Region	Zululand	6,4	0,16	2							
Soil system	Berea			ppm							
Soil form/series	Fernwood/Fernwood	P	K	Ca	Mg	Zn	Al				
Design	Randomised block 6 replications	66	26	188	49						
Variety	N8	Age: 12,0 months		Dates 6.12.83-5.12.84							
Fertilizer/kg ha <sup>-1</sup>	N	P	K	Rainfall: 1703 mm			L.T.M.: 1069 mm				
13/12/83	41		97	0	J	F	M	A	M	J	J
12/1/84	59		59	103	410	331	133	123	37	48	164
	106		156	A	S	0	N	0			
				112	8	88	,05	41			

2. Objectives

To assess the efficacy of three promising nematicides, Furacon, Counter and Marshal on ratoon cane.

3. Treatments

1. Control no nematicide
2. Furacon (10G) at 30 kg ha<sup>-1</sup>
3. Furacon (10G) at 40 kg ha<sup>-1</sup>
4. Counter (10G) at 30 kg ha<sup>-1</sup>
5. Counter (10G) at 40 kg ha<sup>-1</sup>
6. Marshal (25G) at 10 kg ha<sup>-1</sup>
7. Temik (15G) at 20 kg ha<sup>-1</sup>
8. Curaterr(10G) at 30 kg ha<sup>-1</sup>

3.1 Notes on treatments

All nematicides were applied 8 days after harvesting the previous crop and were placed in a shallow furrow (50 mm) on one side of the cane row.

## 4. Results

Treatments	Tons cane ha <sup>-1</sup>	Sucrose % cane	Tons sue. ha <sup>-1</sup>	Stalk ht (cm)	Stalk popln. x 1000 ha <sup>-1</sup>
Control	28	12,0	3,3	150	104
Furacón 30	45*	12,9*	5,8*	172*	126*
Furacón 40	48**	13,1*	6,3**	172*	131**
Counter 30	43*	12,3	5,4*	168	122*
Counter 40	48**	12,9*	6,2**	177*	122*
Marshal 10	48**	13,1*	6,3**	180*	130**
Temik 20	57**	13,3**	7,6**	189**	134**
Curaterr 30	50**	13,1*	6,6**	179**	130**
Mean	46	12,8	5,9	173	125
C.V.%	26,9	5,9	29,7	10,4	12,2
L.S.D. (P=0,05)	14,4	0,89	2,1	21,1	17,8
L.S.D. (P= 0,01)	19,3	1,2	2,8	28,3	23,9

## 5. Comments

Responses to all nematicides were highly significant (P=0,0!) and cane yields were increased on average by 20 tc ha<sup>-1</sup> (71%). The mean response to nematicides in this first ratoon crop was similar to that in the plant crop.

## 5.1 Furacón

The mean response to Furacón treatments was 18 tc ha<sup>-1</sup>. Responses were similar at the 30 kg and 40 kg ha<sup>-1</sup> rates applied.

## 5.2 Counter

The mean response of 17 tc/ha<sup>-1</sup> to Counter was substantial (P=0,01). Responses to the amount of 40 kg/ha<sup>-1</sup> were slightly higher (n.s.) than those from applying 30 kg/ha<sup>-1</sup>. No symptoms of phytotoxicity (which were evident in the plant crop) were seen in this ratoon crop.

## 5.3 Marshal

The mean yield increase of 20 tc ha<sup>-1</sup> due to treatment with this product was highly significant (P=0,01) and confirms the results from two previous trials (Cat. No. 1324).

## 5.4 Temik and Curaterr

The response of 29 tc/ha<sup>-1</sup> to Temik was 7 tc/ha<sup>-1</sup> (n.s.) greater than the next best treatment which was Curaterr.

## 5.5 General

Mean cane yields were 3,8 tc/ha<sup>-1</sup>/month and 2,7 tc/ha<sup>-1</sup>/100 mm rainfall. The poor yields relative to rainfall may be due to

24% (410 mm) of the total rainfall being recorded on 3 days.

This trial has been terminated.

**Note:** No further immediate testing of Furacon, Counter and Marshal is warranted.

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