

SOUTH AFRICAN SUGAR INDUSTRY  
AGRONOMISTS' ASSOCIATION

Code : NT23/79/R2  
Cat. No.: 1208

Title: TEMIK APPLIED TO RATOON CANE AT DIFFERENT TIMES OF THE YEAR (MPOSA)

1. Particulars of the project

This crop : first & second ratoon  
Site : Moba Planters  
Region : Zululand  
Soil system : Berea  
Form/series : Fernwood  
Design : Randomised block  
Variety : NCo 376  
Fertilizer : N            P            K  
 Top-dressing  
 17/9/79            57            11            57  
 Top-dressing  
 8/10/79            57            11            57  
 22/5/79            1,5 tonnes Dolomitic lime

Soil analysis: Date: pre-plant

<u>pH</u>	<u>O.M.%</u>	<u>Clay %</u>	<u>P.D.I.</u>
5,24		7	

ppm					
<u>P</u>	<u>K</u>	<u>Ca</u>	<u>Mg</u>	<u>Zn</u>	<u>Al</u>
11,2	48	62	21	0,5	8

Age: 16,8 months    Dates: 1/5/79 to 25/9/80

Rainfall: 1 107 mm    L.T.M.: -

Irrigation: Nil

Rainfall:

<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>O</u>	<u>N</u>	<u>D</u>	<u>J</u>	<u>F</u>
106	34	30	24	142	84	133	104	68	54
<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>			
26	44	14	29	10	36	169			

2. Objectives:

To compare the effects of Temik applied at different times of the year to ratoon crops treated on different occasions after harvesting.

3. Treatments:

TRIAL I CONTROL

T0 - Temik 20 kg/ha applied at harvesting                    1/5/79  
 T1 - Temik 20 kg/ha applied 2 months after harvesting    4/7/79  
 T2 - Temik 20 kg/ha applied 4½ months after harvesting   17/9/79

TRIAL II CONTROL

T0 - Temik 20 kg/ha applied 4½ months after harvesting   17/9/79  
 T1 - Temik 20 kg/ha applied 5½ months after harvesting   8/10/79  
 T2 - Temik 20 kg/ha applied 6½ months after harvesting   12/11/79

4. Results:

Treatment	Cane t/ha	ERS % cane	ERS t/ha	Cane kg/stalk	Stalk Length cm	Stalk Population 10 <sup>-3</sup> /ha
<u>TRIAL I</u>						
Control	31	13,9	4,3	0,31	98	98
T0	<u>59</u>	13,5	7,9	0,53	<u>129</u>	109
T1	<u>52</u>	13,9	7,3	0,47	<u>123</u>	112
T2	<u>65</u>	14,0	9,1	0,53	134	<u>123</u>
Mean	52	13,8	7,2	0,46	121	110
CV %	19,5	3,6	18,4	-	8,5	10,2
LSD (0,05)	13,94	0,695	1,82	-	14,17	15,52
LSD (0,01)	19,52	0,975	2,55	-	19,85	21,74
<u>TRIAL II</u>						
Control	42	14,0	5,8	0,39	115	107
T0	<u>77</u>	14,2	10,9	0,60	<u>149</u>	<u>127</u>
T1	<u>64</u>	13,8	8,9	0,52	<u>138</u>	122
T2	<u>61</u>	14,0	8,6	0,47	<u>135</u>	<u>130</u>
Mean	61	14,0	8,5	0,50	134	121
CV %	19,3	3,3	19,7	-	8,7	9,7
LSD (0,05)	16,26	0,643	2,32	-	16,04	16,14
LSD (0,01)	22,78	0,901	3,25	-	22,47	22,61

5. Comments:

1. The large and highly significant ( $P > 0,01$ ) responses to Temik in both trials on this poor Fernwood series soil are manifested in stalk length, population and mass per stalk.
2. The results in Trial I confirm earlier findings that winter cut cane may be treated with Temik any time from the time of cutting to spring. Because of the very dry winter the September applied treatment tended, in this case, to be superior.
3. In Trial II the September treatment, when good rains were recorded, tended to be superior (n.s.) to the late treatment.