

SOUTH AFRICAN SUGAR INDUSTRY
AGRONOMISTS' ASSOCIATION

Code : NT26/79/R
Cat. No.: 1216

Title : CURATERR X PLACEMENT X HERBICIDES (EMPANGENI)

1. Particulars of the project:

<p><u>This crop</u> : Ratoon</p> <p><u>Site</u> : Mr. R.G. Poynton's farm, Empangeni</p> <p><u>Region</u> : Zululand</p> <p><u>Soil system</u> : Berea</p> <p><u>Soil form/series</u> : Fernwood</p> <p><u>Design</u> : Randomised block</p> <p><u>Variety</u> : N55/805</p> <p><u>Fertilizer</u> : <u>N</u> <u>P</u> <u>K</u></p> <p>19/11/79 top-dressed kg/ha 70,5 - 70,5</p> <p>14/12/79 top-dressed kg/ha 70,5 - 70,5</p>	<p><u>Soil analysis:</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>pH</u></th> <th style="text-align: left;"><u>O.M.%</u></th> <th style="text-align: left;"><u>Clay %</u></th> <th style="text-align: left;"><u>P.D.I.</u></th> </tr> </thead> <tbody> <tr> <td>5,3</td> <td>-</td> <td>4</td> <td>-</td> </tr> </tbody> </table> <hr/> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="6" style="text-align: center;">ppm</th> </tr> <tr> <th style="text-align: left;">P</th> <th style="text-align: left;">K</th> <th style="text-align: left;">Ca</th> <th style="text-align: left;">Mg</th> <th style="text-align: left;">Zn</th> <th style="text-align: left;">Al</th> </tr> </thead> <tbody> <tr> <td>17</td> <td>83</td> <td>31</td> <td>14</td> <td>0,3</td> <td>4</td> </tr> </tbody> </table> <p><u>Age:</u> 10,3 months <u>Dates:</u> 5/10/79 to 14/7/80</p> <p><u>Rainfall:</u> 703 mm <u>L.T.M.:</u> 1 033 mm</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>O</u></th> <th style="text-align: left;"><u>N</u></th> <th style="text-align: left;"><u>D</u></th> <th style="text-align: left;"><u>J</u></th> <th style="text-align: left;"><u>F</u></th> <th style="text-align: left;"><u>M</u></th> <th style="text-align: left;"><u>A</u></th> <th style="text-align: left;"><u>M</u></th> <th style="text-align: left;"><u>J</u></th> <th style="text-align: left;"><u>J</u></th> <th style="text-align: left;"><u>A</u></th> </tr> </thead> <tbody> <tr> <td>55</td> <td>79</td> <td>150</td> <td>113</td> <td>144</td> <td>25</td> <td>43</td> <td>28</td> <td>25</td> <td>15</td> <td>26</td> </tr> </tbody> </table>	<u>pH</u>	<u>O.M.%</u>	<u>Clay %</u>	<u>P.D.I.</u>	5,3	-	4	-	ppm						P	K	Ca	Mg	Zn	Al	17	83	31	14	0,3	4	<u>O</u>	<u>N</u>	<u>D</u>	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	55	79	150	113	144	25	43	28	25	15	26
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2. Objectives:

To determine whether responses to Curaterr (10% G) are affected by its placement or by Sencor and diuron application.

3. Treatments:

1. Control + Sencor and diuron.
2. Curaterr at 30 kg/ha (one side of row) + Sencor and diuron.
3. Curaterr at 30 kg/ha (one side of row) + Lasso and atrazine.
4. Curaterr at 30 kg/ha (both sides of row) + Lasso and atrazine.
5. Temik at 15 kg/ha + Lasso and atrazine.

NOTE:

- Sencor and diuron were applied at the rate of 2,5 kg/ha + 2,5 kg/ha - volume sprayed was 247 ℓ/ha.
- Lasso and atrazine were applied at 1,6 kg/ha + 1,25 kg/ha - volumes sprayed were 240 ℓ/ha and 189 ℓ/ha.

4. Results:

Growth characteristics at 3 monthly intervals

Treatment	Age	Stalk population x 10 ⁻³			Height cm ⁻¹		
		3 mths	6 mths	9 mths	3 mths	6 mths	9 mths
Control + S/D		268	200	162	32	118	146
C30 one side + S/D		290	204	188	31	110	143
C30 one side + L/A		264	200	188	33	115	132
C30 both sides + L/A		290	204	186	34	118	150
T20 one side + L/A		290	186	176	33	118	149
MEAN		280	199	180	33	116	144

5. Comments:

- The crop measurements do not reveal any significant responses to nematicides and therefore no assessment can be made as to the efficacy regarding the placement of Curaterr.
- Sencor and diuron did not interact with Curaterr in this situation. Reports of adverse effects from the use of Sencor and diuron in conjunction with Curaterr may be pertinent to plant cane only.

RD/HDN
23/2/1981