

SOUTH AFRICAN SUGAR INDUSTRY
AGRONOMISTS' ASSOCIATION.

STERILISATION TRIAL.

<p>Catalogue No.: 14 <u>This Crop:</u> P, 1R, 2R <u>Site:</u> Sparks, Klipfontein. <u>Altitude:</u> 300' <u>Soil Series:</u> Clansthal <u>Design:</u> Random Block <u>Variety:</u> N:Co.376 <u>Fertilizer:</u> lbs/ac</p>	<p><u>Soil Analysis:</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;"><u>pH</u></td> <td style="text-align: center;"><u>OM%</u></td> <td style="text-align: center;"><u>Clay%</u></td> </tr> <tr> <td>P</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1R</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2R</td> <td style="text-align: center;">5.25</td> <td style="text-align: center;">0.57</td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align: center;">p.p.m.</td> </tr> <tr> <td></td> <td style="text-align: center;">P</td> <td style="text-align: center;">K</td> <td style="text-align: center;">Ca</td> </tr> <tr> <td></td> <td style="text-align: center;">Mg</td> <td></td> <td></td> </tr> </table>		<u>pH</u>	<u>OM%</u>	<u>Clay%</u>	P				1R				2R	5.25	0.57			p.p.m.				P	K	Ca		Mg		
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	N	P	K																										
P Amm, Nitrate	450		300																										
1R Urea	400		300																										
2R Urea	800		600																										

Object: To study the effect of a soil sterilant on cane yields on a Clansthal sand.

Treatments: Not Sterilised = Nil
Sterilised = 25 G.P.A. shell "DD".

Results:

Treatments	T.C.A			% Sucrose			T.S.A.		
	p	1R	2R	P	1R	2R	P	1R	2R
Not Sterilised	50.1	28.6	27.8	13.9	10.3	13.6	6.98	2.97	3.79
Sterilised	50.8	27.7	30.4	- *	10.5	13.6	-	2.94	4.14

* Sucrose data not available.

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

Filter cake x molasses trial

Catalogue No: 14
This Crop: P, 1R, 2R
Site: Sparks, Klipfontein
Altitude: 300'
Soil series: Clansthal
Design: Random block
Variety: N:Co.376
Fertilizer:

		N	P	K
P	A/N	450		300
1R	Urea	400		300
2R	Urea	400		600
	LAN	(800)		

Water Regime: Dryland

Soil analysis:

	<u>pH</u>	<u>OM%</u>	<u>Clay%</u>
P			
1R			
2R	5.25	0.57	

ppm

	P	K	Ca	Mg
P				
1R				
2R	28	70	515	32

Age: P 18M May 1959 - Nov. 1960
 1R 27M Nov. 1960 - Feb. 1963
 2R 16M Feb. 1963 - June 1964

Rainfall: P - 54.22"; 1R - 88.30"
 2R - 46.52"

Object:

To compare the effects of filter cake and molasses, alone and in combination with a control.

Treatments:

- A = Control
 - B = Filterpress 40 T.P.A.
 - C Molasses 1,500 G.P.A.
 - D = Filterpress 40 T.P.A. + Molasses 1,500 G.P.A.
- Plots subdivided - received Shell DD 25 G.P.A.

Results:

Plant Cane Cr-op,

Treatment	Mean		
	T.C.A.	Suc. %	T.S.A.
A Control	50.2	14.0	6.35
B Filter Press 40 T.P.A.	49.9	14.0	6.56
C Molasses 1,500 G.P.A.	49.0	14.0	6.87
D Mol. 1,500 G.P.A. + F. Press 40 T.P.A.	53.3	13.9	7.60

1st. and 2nd. Ratoon Results.

Treatments	T.C.A.		Sucrose %		T.S.A.	
	1R	2R	1R	2R	1R	2R
Al. Control	31.9	23.8	10.8	13.5	3.46	4.85
B1. Filter Press 40 T.P.A.	21.5	26.4	10.3	13.7	2.21	3.62
C1. Molasses 1,500 G.P.A.	23.0	29.3	10.1	14.1	2.33	4.13
D1. F. Press 40 T.P.A. +	24.0	24.7	10.0	13.7	2.80	4.57