

SOUTH AFRICAN SUGAR INDUSTRY
AGRONOMISTS' ASSOCIATION

E.D.B. STERILIZATION TRIAL

Catalogue No.: 72
This Crop: P, 1R, 2R
Site: Norsworthy, Mwavine.
Altitude: 300'
Soil Series: Clansthal
Design: Random Block
Variety: N:Co.376
Fertilizer: N P K
P Amm. Nit. 600 400
1R Amm. Nit. 600 400
2R Urea 400 250
Water Regime: Dryland.

Soil Analysis:

	<u>pH</u>	OM%	Clay%
P	6.08	0.90	
1R			
2R	5.25	0.72	
		<i>p. p. m</i>	
	P	K	Ca Mg
p	146	77	500
1R			
2R	52	61	910 264

Age: P 19 Months - Mar. '58 - Oct. '59
1R 24 Months - Oct. '59 - Oct. '61
2R 20 Months - Oct. '61 - June '63

Rainfall: P 51.90"
1R 86.91"
2R 62.23"

Object: To compare different soil sterilization treatments with a control.

Treatments: X = Control
1 = E.D.B. 2.25 @ 20 G.P.A.
2 = E.D.B. 2.25 @ 50 G.P.A.
3 = E.D.B. 2.25 @ 80 G.P.A.
4 = E.D.B. 2.25 @ 20 G.P.A. in Line.

Results:

TREATMENTS	PLANT CANE			1ST RATOON			2ND RATOON		
	ToC, A.	% SUCROSE	T.S.A.	r.c. <	% SUCROSE	T.S.A.	T.C.A.	% SUCROSE	T.S.A.
X	38.9	13.09	5.09	52.5	14.16	7.43	14.8	13.01	1.93
1	41.8	13.64	5.70	61.9	14.12	8.74	20.4	13.47	2.75
2	40.3	13.06	5.26	48.9	14.15	6.91	13.0	13.02	1.69
3	45.5	13.38	6.09	68.5	14.07	9.62	27.5	13.17	3.62
4	43.7	13.16	5.75	49.7	14.24	7.07	20.3	13.59	2.76

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Filter cake x molasses trial

Catalogue No: 72
 This Crop: P, 1R, 2R
 Site: Norsworthy, Mvawine
 Altitude: 300'
 Soil series: Clansthal
 Design: Random blocks
 Variety: N:Co.376
 Fertilizer:

	N	P	K
P A/N	600		400
1R A/N	600		400
2R Urea	400		250

Water Regime: Dryland

Soil Analysis:

	pH	OM %	Clay%
P	6.08	0.90	
R1			
R2	5.25	0.72	
	ppm		
	P	K	Ca Mg
P	146	77	500
R1			
R2	52	61	910 264
Age: P	19M - March 1958 - Oct. 1959		
R1	= 24M - Oct. 1959 - Oct. 1961		
R2	= 20M - Oct. 1961 - June 1963		
Rainfall:	P - 51.90", H - 86.91" and		
	R2 - 62.23"		

Object:

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

Treatments: A Filter press @ 20 T.P.A.
 B = Molasses 1,500 G.P.A. in Furrow +)
 Filter press 20 T.P.A. in)
 C Filter press 20 T.P.A. + 2 T.P.A.)
 Dolomitic lime in furrow)
 D Mol. Molasses 1,500 G.P.A. in furrow
 X Control

Results:

Treatment	T.C.A.		Sucrose % Cane			T.S.A.
	P.	1R.				
A Filter press 20 T.P.A.	43.3	52.0				
C F. Press 20 T.P.A. + Dol. Lime 2 T.P.A.	38.7	51.0				
B Mol. 1,500 G.P.A. + F. Press 20 T.P.A.	40.8	51.7				
D Molasses 1,500	40.9	52.3	18.7	13.5	14.3	
X Control	38.9	52.5	14.8		14.21	