SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS! ASSOCIATION

FILTER CAKE AND KRAAL MANURE

Catalogue No.: 159

This crop: Plant

ч

Site: Klipspruit section, Powers-

court

Al<u>titude</u>: 2500

Soil Series: Inanda Design: 3 X3 factorial, 4 replica

tions

Variety: N:Co.293

Fertilizer: N: 66 Ib./ac.

See treatments

Water regime: Dryland

Soil Analysis: No samples taken

Age: 22months (1/57 - 11/58)

Rainfall: 75.75¹¹

Object: To determine the optimum combination of filter eake and kraal manure in an area deficient in P and K.

<u>Treatments</u>: FO - No filter cake

KO - No kraal manure

Fl - 5 tons filter cake/ac. Kl - 10 tons kraa.L manure/aC.

F2 -10 tens filter cake/ac. K2 - 20 tons kraal manure/ace

Results:

Treatment	T. C. A.	Sue. %	T.S.A.
Fa	52.3	14.1	7.38
Fl	57.2	13.8	7.93
F2	59.2	13.5	8.01
Mean	56.2	13.8	7.77
S.E. single plot	+ 4.95		+ 0.72
L.S.D. (0.05)	4.17		0.61
(0.01)	5.65		0.83
C.V. %	8.8		9.3

Comment: Response to filter cake is highly significantly linear for T.C.A.

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FILTER CAKE vs KRAAL MANURE

Catalogue No. LS.E. Code	159 Expt. Plot 13	Soil Analysis:	Ni 1
This crop Site	1st Ratoon K/Spruit, P/Court	Ag e	24 months
Altitude Soil Type	2 500 ft T.M.S. Ord.		(11.58 - 11.60)
De si gn Var i et y	Factorial, 2 reps	Rainfall	No record
Fertilizer Water Regime	See treatments Dryland		

Object: To test residual effect of treatments.

FCO = NilTreatments:

= Nil KMO Nil
= 5 Tons Filter cake KMl = 5 Tons Kraal Manure
= 10 Tons Filter cake KM2 10 Tons Kraal Manure F'C1

Analysis

Filter cake D.M. basis 1,83% N, Z,92% P205, 0,125% KZO

68,8% H₂O

Kraal Manure: D.M. basis = 1,10% N, 0,59% PZ05, 0,55% KZ0

43,3% H₂O

Results:

Tons Cane per Acre (Means)

	KMO	KMl	KM2	Mean
FCO	46,4	51,5	54,2	50,7
FC1	52,1	50,7	64,6	52.5
FC2	52,6	57,1	58,2	56,0
Mean	50,4	53,1	55,7	53,0

L.S.D. marginal means 3,93 at 5% 5,32 at 1%

Sucrose % Cane (Means)	Fibre % Cane (Means)
FCO = 14,5	FCO 13,2
FC1 = 15,0	FCl = 13,0
FC2 = 15,1	FC2 12,7
KMC = 14,3	KMO - 13,2
KMl = 14,9	KM1 = 12,9
KM2 = 15.5	KM2 = 12,8

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FILTER CAKE vs. KRAAL MANURE

Catalogue No.	159	Soil Analysis	None
r,S.Z, Code	Expt o Pl ot 13		
This crop	2nd Ratoon		
Si t e	K/Spruit, P/Court	Age	25 mont hs
Al titude	2 500		(11,60 - 12,62)
Soil Type	T.M.S. Ord,		
Design	Factorial 2 reps.		
Variety	NCo 293	Rai nfal l	None recorded
Fertili zer	See treatments		
Water Regi.me	Dr yl and		

Object.e: To test residual effects of treatments.

Treatments: As per plant crapo

Results:

Tons cane per acre (Means)

	KMO	<u>K</u> M	KM2	Mean
FCO	37,6	28,6	31,9	32,7
FC1	24,6	35,0	36,5	29,0
FC2	30,7	39,1	30,7	33,5
Mean	30,9	31,3	33,0	31,7

No treatment had a significant effect on Sue. % Cane the mean sucrose % Cane being 15,30%

The C.V. % = 22,6% and hence no significant treatment responses.