

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

N.P.K. AND SUBSOILING TRIAL

Catalogue No.: 108
This crop: Ratoon
Site: Kirkley Vale Sect.
 Darnall Melrose Field
Altitude:
Soil series: T.M.S. Cartref/trevanian
Design: Random block
Variety: N:Co.293
Fertilizer: 1000 lbs 12 : 8 : 16

Soil Analysis:

pH.	P.P.M.			
	P.	K.	Ca.	Mg.
4.5	14	109	200	320
Age: 19 months 4/63 - 11/64				

Rainfall this crop: 52.86
Water regime: Dryland.

Object: To evaluate subsoiling and surface or deep fertilizer application.

- Treatments:
1. Control No fert. or S. Soil.
 2. Subsoiling No fertilizer.
 3. Top dress No subsoiling
 4. Subsoil and top dress.
 5. Sub soil and deep fertilizer application.

Results:

108
67/64

Treatment	T.C.A.	% Sucrose	T.S.A.	T.C.A.M.	Lbs. S.A.M.	RANK	
						A	B
1	19.38	15.83	3.06	1.019	322	4	4
2	15.24	15.53	2.37	0.816	250	5	5
3	32.21	15.69	5.06	1.694	532	1	1
4	29.52	15.66	4.62	1.553	486	2	3
5	29.49	15.82	4.67	1.551	497	3	2

S.E. = 3.715
 C.V. = 14.759%

Treatment differences highly significant
 L.S.D. between treatments = 4.48 T.P.A. @ 5%
 6.10 T.P.A. @ 1%

Conclusions: Results do not indicate that any benefit has been gained from subsoiling or deep placement of fertilizer over surface application.

There is however, a highly significant response to fertilizer.

30th October, 1968.