

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

POTASH TRIAL

Catalogue No.: 48
This crop: P, 1R, 2R
Site: 105 Karuppen, Mwawine
Altitude: 300'
Soil series: Red sand
Design: Random block 4 reps.
Variety: N:Co.382
Fertilizer: See below
Water regime: Dryland

Soil Analysis:

	pH	OM%	Clay%
P	5.2	.48	
1R	5.7	.40	
2R	5.5	.67	

	p.p.m.			
	P	K	Ca	Mg
P	44	206	4831	270
1R	15	68	3760	22
2R	38	92	1782	39

Age: P 18 mths. Nov. '61 - May, '63
 1R 14 " May, '63 - July '64
 2R 14 " July '64 - Sept. '65

Rainfall: R. 51.16", 1R. 38.02,
 2R.40.99".

Object: To compare five levels of potash with a control in a plant crop and two ratoons.

Fertiliser:

Plant	1st Ratoon	2nd Ratoon
(Urea) 207 lbs N/ac	(Lan.) 90 lbs N/ac	(Lan.) N ₁ 100 lbs N/ac N ₂ 200 "
(S.P.) 66.4 lbs P/ac	(S.P.) 41.5 lbs P/ac	(S.P.) P ₁ 16.6 lbs P/ac P ₂ 33.2 "
(M.P.) K ₀	(M.P.) K ₀	(M.P.) K ₀
K ₁ 50 lbs K/ac	K ₁ 50 lbs K/ac	K ₁ 50 lbs K/ac
K ₂ 100 "	K ₂ 100 "	K ₂ 100 "
K ₃ 150 "	K ₃ 150 "	K ₃ 150 "
K ₄ 200 "	K ₄ 200 "	K ₄ 200 "
K ₅ 250 "	K ₅ 250 "	K ₅ 250 "

Treatment:

Plant	1st Ratoon	2nd Ratoon
K ₁ 50	50	50 lbs K/ac
K ₂ 100	100	100 "
K ₃ 150	150	150 "
K ₄ 200	200	200 "
K ₅ 250	250	250 "

Results:

	Treatment	T.C.A.	Suc. %	T.S.A.
Plant	K ₀	45.7	13.98	6.38
	K ₁	54.6	14.28	7.78
	K ₂	59.5	14.62	8.71
	K ₃	53.6	14.37	7.66
	K ₄	56.2	14.25	8.01
	K ₅	54.9	14.33	7.88
1st Ratoon	K ₀	35.6	14.30	5.09
	K ₁	35.4	14.13	5.00
	K ₂	40.7	14.17	5.77
	K ₃	34.5	14.14	5.01
	K ₄	36.5	14.09	5.14
	K ₅	34.9	14.00	4.89
2nd Ratoon	K ₀	32.2	13.11	4.22
	K ₁	33.2	12.80	4.25
	K ₂	35.2	12.24	4.31
	K ₃	33.1	12.65	4.19
	K ₄	33.1	12.52	4.14
	K ₅	36.5	12.59	4.60