

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

POTASH TRIAL

Catalogue No.: 87  
 This crop: Plant, 1R.  
 Site: 130 Stables, Inyaninga.  
 Altitude: 300'  
 Soil series: Dolerite  
 Design: Random block 4 reps.  
 Variety: N.50/211  
 Fertilizer: See below.  
 Water regime: Dryland.

Soil Analysis:

			p.p.m.				
	pH	OM%	Clay %	P	K	Ca	Mg
1R.	5.8	5.58	32	59	129	1061	494
<u>Age:</u>		P 16 mths.	Nov. 63 - July 64.				
		1R 14 "	July 64 - Sept. 65				
<u>Rainfall:</u>		P.	40.07"				
		1R.	34.08"				

Object: To compare five levels of K with a control in a plant crop and first ratoon.

Fertilizer:

	<u>Plant</u>	<u>1st Ratoon</u>
(LAN)	250 lbs. N/ac.	(LAN) N <sub>1</sub> 100 lbs. N/ac. N <sub>2</sub> 200 lbs. N/ac.
(SP)	49.8 lbs. P/ac.	(SP) 33.2 lbs. P/ac.
(KCl)	K <sub>0</sub> -	(KCl) K <sub>0</sub> -
	K <sub>1</sub> 100 lbs.K/ac.	K <sub>1</sub> 50 lbs.K/ac.
	K <sub>2</sub> 200 " "	K <sub>2</sub> 100 " "
	K <sub>3</sub> 300 " "	K <sub>3</sub> 150 " "
	K <sub>4</sub> 400 " "	K <sub>4</sub> 200 " "
	K <sub>5</sub> 500 " "	K <sub>5</sub> 250 " "

Treatments:

K <sub>1</sub> :	100	K <sub>1</sub> 50 lbs.K/ac.
K <sub>2</sub> :	200	K <sub>2</sub> 100 " "
K <sub>3</sub> :	300	K <sub>3</sub> 150 " "
K <sub>4</sub> :	400	K <sub>4</sub> 200 " "
K <sub>5</sub> :	500	K <sub>5</sub> 250 " "

Results:

	Treatment	T.C.A.	% Suc.	T.S.A.
Plant	K <sub>0</sub>	35.2	15.36	5.41
	K <sub>1</sub>	39.1	15.60	6.10
	K <sub>2</sub>	37.8	15.58	5.89
	K <sub>3</sub>	40.8	15.09	6.16
	K <sub>4</sub>	40.6	15.48	6.28
	K <sub>5</sub>	39.3	15.49	6.09
1 R.	K <sub>0</sub>	15.1	11.68	1.76
	K <sub>1</sub>	16.3	11.75	1.92
	K <sub>2</sub>	16.8	12.17	2.05
	K <sub>3</sub>	17.1	12.46	2.13
	K <sub>4</sub>	15.3	11.96	1.83
	K <sub>5</sub>	16.2	12.23	1.98