

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

FORMS OF PHOSPHATE x FILTER CAKE TRIAL

Catalogue No: 7
This crop: P, 1R.
Site: Sweet Potatoes, Cranbrook
Altitude: 600'
Soil series: Cartref
Design: Random block, 4 reps.
Variety: N:Co.339
Fertilizer: See below
Water regime: Dryland

Soil Analysis:

	<u>pH</u>	<u>OM%</u>	<u>Clay%</u>
P	5.50	0.95	-
1R	5.51	0.66	-

	<u>ppm</u>			
	<u>P</u>	<u>K</u>	<u>Ca</u>	<u>Mg</u>
P	44	134	550	-
1R	16	66	-	135

Age: P 21 mths: 11/58-8/60
 1R 23 " : 8/60-7/62
Rainfall: P : 54.4"
 1R : 81.6"

Object:

To compare three phosphate carriers with three levels of filter cake and a control.

<u>Fertilizer:</u>	<u>Plant</u>	<u>lb/acre</u>	<u>1R</u>
Ammonium nitrate	500	Urea	300
Muriate	300	Muriate	250
P ₀ -	Nil	-	Nil
P ₁ Supers	800	Supers	500
P ₂ Saaifos	600	Basic supers	500
P ₃ Hyperphosphate	700	Hyperphosphate	500

Results:

	<u>Treatment</u>	<u>T.C.A.</u>	<u>Suc. %</u>	<u>T.S.A.</u>
Plant	P ₀	35.7	14.08	5.03
	P ₁	37.2	14.71	5.47
	P ₂	39.2	14.42	5.66
	P ₃	39.8	14.16	5.61
1R	P ₀	40.0	14.67	5.92
	P ₁	42.3	15.13	6.39
	P ₂	39.6	14.82	5.87
	P ₃	40.8	14.96	6.11