

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

CALCIUM AND MAGNESIUM

Catalogue No: 59  
This crop: 2nd Ratoon  
Site: Sprowston Kearsney  
 Store Field.  
Altitude: 1300'  
Soil Series: T.M.S. Trevanian  
Design: Random Block  
Variety: N:Co.376  
Fertilizer: See Treatments  
Water Regime: Dry Land

Soil Analysis:

<u>pH</u>	<u>OM%</u>	<u>Clay%</u>
4.5	-	-

<u>p.p.m.</u>			
<u>P</u>	<u>K</u>	<u>Ca</u>	<u>Mg</u>
10	65	675	170

Age: 14 months (10/67 - 12/68)  
Rainfall: 53.18"

Object: To study the effects of calcium and magnesium on cane yields.

Treatments:

1.	Ca	0 lbs/A	+	Mg	0 lbs/A	
2.	Ca	111 lbs/A	+	Mg	60 lbs/A	ALL PLOTS 4:1:6 1200 lbs/A
3.	Ca	222 lbs/A	+	Mg	120 lbs/A	

Results:

Treatment	T.C.A.	%	A		Blbs	Rank	
			T.S.A.	T.C.A.M.		S.A.M.	A
1	36.63	13.30	4.872	2.616	696	2	3
2	39.91	13.50	5.388	2.851	769	1	1
3	36.22	13.50	4.889	2.587	698	3	2

S.E. = ± 3.25      Difference between treatments not statistically  
 C.V. = 8.6%      significant.

The calcium and Magnesium treatments were superimposed on a trial previously laid down as a nitrogen trial, but no response to Ca Mg treatments were observed. This was to be expected due to the adequate Ca and Mg soil levels.