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SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION.

TIME OF APPLICATION OF FERTILIZER TO PLANT CANE.

Catalogue No.: 181
This Crop: Plant Cane
Site: Doornkop Section, B10 (Y)
Altitude: 1,200 ft.
Soil Series: Cartref
Design: Random Blocks (5 reps.)
Variety: N:Co.293
Fertilizer:(lb. p.a.)
 N . P . K
 126 34 75
 all treatments except 'Control'
Water Regime: Dryland.

Soil Analysis:

pH	OM%	Clay%
5.44	2.83	19.26

p.p.m.

P	K	Ca	Mg
27	157	331	108

Age: P : 24 months; 9.65 - 8.67

Rainfall: 73.31 inches

Irrigation: -

Object: To study the effects on crop yield of various times of application of fertilizer to plant cane.

Treatments:

1. Control - no fertilizer.
2. All N, P & K in furrow at planting.
3. $\frac{1}{4}$ N, all P & K in furrow at planting; $\frac{3}{4}$ N as single top-dressing (15 weeks).
4. All P & K " " " " ; All N as single top-dressing (15 weeks).
5. All P & K " " " " ; " " " split " "
6. All P " " " " ; " " & K as single top-dressing (15 weeks).
7. All P " " " " ; " " " " split " "

Results: (Mean Yields)

Treatments	T.C.A.	S. % C.	T.S.A.
1. Control	61.8	13.31	8.24
Furrow - $3\frac{1}{2}$ - 5 months			
2. N, P, K, - - -	64.0	13.71	8.74
3. $\frac{1}{4}$ N, P, K, - $\frac{3}{4}$ N - -	66.1	13.82	9.09
4. P, K, - N - -	75.8	13.81	10.42
5. P, K, - $\frac{1}{2}$ N - $\frac{1}{2}$ N	70.8	13.38	9.49
6. P, - N, K, - -	71.3	12.92	9.15
7. P, - $\frac{1}{2}$ N $\frac{1}{2}$ K - $\frac{1}{2}$ N $\frac{1}{2}$ K	67.4	13.56	8.33
Mean	68.2	13.50	9.07
S.E. of treatment mean	5.01	0.464	0.637
L.S.D. (0.05)	14.6	1.36	1.86
(0.01)	19.8	1.84	2.53
C.V. %	16.4	7.7	15.7