

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

Heat Treated Variety Trial

Catalogue No.: 97
This crop: P, 1R.
Site: Quarry, Tongaat.
Altitude: 300'
Soil: Shortlands
Design: Random block
Varieties: N:Co.376, N.50/211
Fertilizer: N P K
 Plant Urea 250 - 250
 1R LAN 1000 500 200

Soil Analysis:

	pH	OM %	Clay %	P.p.m.			
				P	K	Ca	Mg
P	5.91	4.88	-	75	134	7686	973
1R	5.55	6.41	41.2	40	448	1550	478

Age:
 P = 18 mths. Oct. 1962 - April 1964.
 1R = 17 " April 1964 - Sept. 1965.

Rainfall:
 P : 66.00"
 1R : 41.06"

Object: To compare treated and untreated seed material from N:Co.376 and N.50/211.

Treatments: Heat treated : N.50/211, N:Co.376
 Untreated : N.50/211, N:Co.376

Results:

Item	Variety	Plant cane			First ratoon		
		Heat Treated	Untreated	Mean	Heat Treated	Untreated	Mean
T.C.A.	N:Co.376	72.2	62.5	67.4	30.5	25.1	27.8
	N.50/211	62.0	59.1	60.6	43.6	34.1	38.9
Suc. %	N:Co.376	12.7	13.9	13.3	12.6	13.4	13.0
	N.50/211	13.8	13.1	13.5	12.9	12.9	12.9
T.S.A.	N:Co.376	9.18	8.71	8.95	3.83	3.36	3.60
	N.50/211	8.54	7.77	8.16	5.63	4.41	5.02

30th May, 1966.

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

HEAT TREATED VARIETY TRIAL

Catalogue No.: 97
This Crop: 2R, 3R
Site: Quarry, Tongaat.
Altitude: 300'
Soil Series: Shortlands
Design: Random Block
Varieties: N:Co.376, N.50/211
Fertilizer: N P K
 2R Urea 200 300 200
 3R Urea 200D/S200 200
Water Regime: Dryland.

Soil Analysis:

	pH	OM%	Clay%
2R	5.34	-	-
3R	5.29	-	-

p.p.m.

	P	K	Ca	Mg
2R	45	152	825	425
3R	42	183	1255	ample

Age: 2R 13 months - Sept. '65 - Oct. '66
 3R 15 months - Oct. '66 - Feb. '68

Rainfall: 2R 31.49"
 3R 52.95"

Object: To study the effects of heat treatment on the yields of two varieties.

Treatments: 1. Heat Treated : N.50/211, N:Co.376
 2. Untreated : N.50/211, N:Co.376

Results:

ITEM	VARIETY	2ND RATOON			3RD RATOON		
		1. HEAT TREATED	2. UNTREATED	MEAN	1. HEAT TREATED	2. UNTREATED	MEAN
T.C.A.	N:Co.376	36.0	23.8	29.9	46.2	38.0	42.1
	N.50/211	29.6	26.8	28.2	29.2	29.3	29.3
Suc. %	N:Co.376	13.79	13.62	13.70	13.02	13.29	13.16
	N.50/211	14.75	14.55	14.65	11.58	12.16	11.87
T.S.A.	N:Co.376	4.96	3.24	4.10	6.02	5.05	5.54
	N.50/211	4.37	3.90	4.13	3.38	3.56	3.47