

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

PRE-RELEASE VARIETY TRIAL

Catalogue No.: 144
This crop: Plant
Site: Klipspruit Section, Powers-
court
Altitude: 2500'
Soil series: Inanda
Design: 4 X 4 Latin Square
Varieties: See treatments
Fertilizer: Not recorded
Water regime: Dryland

Soil Analysis: No taken

Age: 25 months (10/62 - 12/64)

Rainfall: 80.53"

Object: To compare N:Co's 293 and 376 with two new varieties.

Treatments: N:Co.293, N:Co.376, CB 36/14, CB 38/22

Results:

Variety	T.C.A.	Suc. %	T.S.A.
N:Co.293	83.4	13.31	11.08
N:Co.376	84.0	13.44	11.28
CB 36/14	63.5	13.85	8.80
CB 38/22	49.0	13.81	6.77

SOUTH AFRICAN SUGAR INDUSTRY

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PRE-RELEASE VARIETY TRIAL

Catalogue No.: 144
This crop: 1st Ratoon
Site: Klipspruit Section, Powers-
court
Altitude: 2500'
Soil series: Inanda
Design: 4 X 4 Latin Square
Varieties: See treatments
Fertilizer: Not recorded
Water regime: Dryland

Soil Analysis: No samples taken

Age: 13 months (12/64 - 1/66)

Rainfall: 44.20"

Object: To compare N:Co's 293 and 376 with two new varieties.

Treatments: N:Co. 293, N:Co.376, CB 36/14, CB 38/22

Variety	T.C.A.	Suc. %	T.S.A.
N:Co.293	38.9	9.11	3.55
N:Co.376	41.2	9.37	3.86
CB 36/14	53.2	7.59	4.03
CB 38/22	31.8	9.59	3.05

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VARIETY TRIAL

Catalogue No: 144	Soil Analysis: -----
This crop : 2nd Ratoon	Age : 17 months
Site : Klipspruit, Powerscourt, Illovo.	Rainfall : 51.81 inches.
Altitude : + 2,300 feet	
Soil Type : T.M.S. Mist Belt	
Design : 4 x 4 Latin Square	
Varieties : As quoted below	
Fertilizer : 300 Urea & 300 Potash	
Water Regime: Dryland	

Object: To compare the performance of 4 Varieties listed below.

Treatment: NCo. 293, NCo. 376, CB. 36/14, CB. 38/22.

Results:

1 CB.38/22 TCA 48.0 Suc% 12.49 Pur% 85.16	2 CB.36/14 56.0 12.37 85.67	3 NCo.376 94.6 11.38 82.86	4 NCo.293 64.3 11.11 82.68
5 NCo.376 TCA 81.3 Suc% 11.17 Pur% 83.68	6 CB.36/14 69.9 12.26 87.12	7 NCo.293 71.1 10.96 82.09	8 CB.38/22 53.0 12.33 83.13
9 NCo.293 TCA 72.7 Suc% 11.08 Pur% 83.49	10 NCo.376 83.4 11.15 84.16	11 CB.36/14 61.2 12.37 87.09	12.CB.38/22 44.2 12.40 84.54
13 CB.38/22 TCA 55.2 Suc% 11.72 Pur% 83.43	14 NCo.293 63.7 10.85 82.75	15 NCo.376 90.6 11.21 85.48	16 CB.36/14 58.8 12.22 86.07

TABLE OF MEANS.

Variety	T. C. A.	Suc %	Pur %	T. S. A.	^{xx} Rating
NCo. 376	87.5	11.23	85.05	9.82	1
NCo. 293	68.0	11.00	82.75	7.48	3
CB.36/14	61.5	12.31	86.49	7.57	2
CB.38/22	50.1	12.24	84.07	6.13	4

xx Rating is based on T. S. A.

Variety CB.36/14, on appearance, was outstanding in this trial due to it having long heavy sticks but on yield per unit area, NCo. 376 was far superior. The reason for the superiority of 376 was due to a greater population of sticks per plot. This is borne out by the individual stick weights recorded below.

Based on the individual stick weights CB.36/14 was the best variety. This would suggest that, if CB.36/14 were planted at a greater rate per acre to encourage higher stick populations, the variety might prove to be superior to 376. Naturally, this hypothesis is based on the assumption that a greater seeding rate of 376 would not improve yield due to the existing population being optimum and that of CB.36/14 not having been optimum at existing seeding rates.

THE MEAN WEIGHT OF 12 RANDOM STICKS PER PLOT.

KEY:

Plot No.
Variety
Mean Wt. in Grams.
Mean Wt. in Lbs.

16 36/14 1258.08 2.77	15 376 1071.80 2.36	14 293 952.66 2.10	13 38/22 978.81 1.16
9 293 1028.75 2.27	10 376 813.08 1.79	11 36/14 1022.45 2.25	12 38/22 979.25 2.16
8 38/22 827.08 1.82	7 293 1019.08 2.24	6 36/14 1069.41 2.36	5 376 1032.33 2.27
1 38/22 959.75 2.11	2 36/14 1076.00 2.37	3 376 1113.08 2.45	4 293 959.54 2.11

TABLE OF MEANS

Variety	Mean Lbs	Mean Grams	Rating
36/14	2.44	1106.49	1
376	2.22	1007.57	2
293	2.18	990.01	3
38/22	1.81	936.22	4