

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

Pre-Release Trial (53/216, 52/219)

Catalogue No: 138
This Crop: Plant
Site: Project Section, Darnall
 House Field
Altitude: 300'
Soil Series: Dwyka, Williamson
Design: Latin Square
Variety: See treatments
Fertilizer: Supers 8.3% P 800
 15:0:15 600
 15:0:15 600
Water Regime: Dryland

Soil Analysis:

pH	ppm			
	P	K	Ca	Mg
4.5	44	120	1460	440

Age: 23 months (1/63 - 12/63)

Rainfall, this crop: 83.22"

Object: To test Pre-release varieties.

Treatments:

1. N:Co.376
2. N:Co.293
3. N.53/216
4. N.52/219

Results:

Variety	T.C.A.	Suc.%	T.S.A.	1		Rank	
				T.C.A.M.	2 Lbs. S.A.M.	1	2
376	62.07	14.46	8.92	2.699	775	1	1
293	55.86	14.98	8.37	2.429	727	2	2
53/216	50.78	15.17	7.70	2.208	669	4	4
52/219	54.26	14.73	8.01	2.359	696	3	3

S.E. = ± 1.949

C.V. = 3.4 % Treatment Differences Significant.

L.S.D. Between 2 varieties = 3.37 T.P.A. 5%
 = 5.11 T.P.A. 1%

Conslusions:

N:Co.376 is significantly superior to all other varieties at the 5% level. Relatively poor performance of N.53/216 should be noted.

12th May, 1966.

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PRE-RELEASE TRIAL (53/216, 52/219)

Catalogue No: 138
This crop: 1st Ratoon
Site: Prospect section Darnall
House field
Altitude: 300'
Soil series: Dwyka Williamson
Design: Latin Square
Variety: See treatments
Fertilizer: 800lb./acre 15 : 0 : 15
Water regime: Dryland

Soil Analysis:

pH	p.p.m.			
	P	K	Ca	Mg
4.5	44	120	1460	440

Age: 13 months (12/63 - 1/65)
Rainfall: 44.24"

Object: To test Pre-release varieties.

- Treatments:
1. N53/216
 2. N52/219
 3. N:Co.376
 4. N:Co.293

Results:

Variety	T.C.A.	Suc. %	T.S.A.	1	2	Rank	
				T.C.A.M.	lb./S.A.M.	1	2
53/216	35.26	15.80	5.571	2.712	857	1	1
52/219	30.73	12.76	3.921	2.364	604	3	3
376	33.22	13.89	4.614	2.555	710	2	2
293	29.94	12.68	3.796	2.303	584	4	4

S.E. = 3.215

C.V. = 9.95 %

Treatment differences not significant

Conclusions: N53/216 gave the highest yields of all varieties including 376 although the difference cannot be considered significant.

SOUTH AFRICAN SUGAR INDUSTRY

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PRE-RELEASE VARIETY TRIAL

Catalogue No: 138
This crop: 2nd Ratoon
Site: Prospect Estate, Darnall
 (House Field)
Altitude: 300'
Soil Series: Williamson
Design: 4 x 4 Latin Square
Variety: See Treatments
Fertilizer: Not recorded
Water Regime: Dryland.

Soil Analysis:

pH	OM%	Clay%	ppm			
			P	K	Ca	Mg
5.4	3.7	-	4	83	380	222

Age: 19 months (1/65 - 8/66)
Rainfall: 56.66"
Irrigation: Nil

Object:

To test pre-release varieties against released varieties.

Treatments:

1. N.53/216
2. N.52/219
3. N:Co.376
4. N:Co.293

Results:

Variety	T.C.A.	% Sucrose	T.S.A.	A. T.C.A.M.	B. S.A.M.	Rank	
						A	B
N.53/216	51.82	15.58	8.074	2.727	850	3	3
N.52/219	43.17	14.87	6.419	2.272	676	4	4
N:Co.376	61.99	14.67	9.094	3.263	958	1	1
N:Co.293	54.14	15.39	8.332	2.849	878	2	2

S.E. = + 2.84
 C.V. = 5.4%

Treatment differences statistically significant at 5% and 1%
 L.S.D. between treatments 8.39 T.P.A. @ 5%
 12.05 T.P.A. @ 1%

Comment:

N.53/216 is significantly outyielded by N:Co.376 and an insignificant margin of 2.3 tons by N:Co.293.

28th November, 1966.