SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

DRYLAND VARIETY TRIAL

Catalogue No: 113
This crop: Plant
Site: Ottawa Section, Natal Estates Ltd., Paddock field
Altitude: 200'
Soil series: Ecca Windermere
Design: Random Block
Variety: See treatments
Fertilizer:

all plots
Amm. Nitrate 31% N 400 lb./acre
Supers 8.3% P 600 lb./acre
M. Potash 50% K 300 lb./acre

Water regime: Dryland

Soil Analysis:

	p.p.m.			
pH	P	K	Ca	Mg
8.1	26	49	8888	198

Age: 14 months (8/63 - 11/64)

Rainfall: 35.76"

Object: To test variety performances on dry land

Treatments:
1. N50/211
2. N:Co.376
3. N51/168
4. N51/539
5. N:Co.310
6. N:Co.382

Results:

Variety	Suc. %	T.C.A.	T.C.A.M.	T.S.A.	Lb./S.A.M.	Rank	
						Cane	Suc.
211	13.62	26.47	1.89	3.605	516	1	1
376	13.61	23.88	1.71	3.250	464	3	4
168	14.03	25.24	1.80	3.541	506	2	2
539	14.30	23.74	1.69	3.395	486	4	3
310	14.33	22.02	1.57	3.155	450	5	5
382	13.14	19.74	1.41	2.988	426	6	6

S.E. = $\pm$ 3.46
C.V. = 14.7%

Differences between treatments not statistically significant.

Conclusions: No significant difference between varieties observed. When compared with the irrigated variety trial climatic influence has masked potential differences to varietal response.
Average response to irrigation was 42.8% to the plant cane.

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Dryland Variety Trial.

Catalogue No: 113
This Crop: 1st Ratoon
Site: Ottawa Section, N.E.L. Paddock field
Altitude: 200'
Soil Series: Ecca, Windermere
Design: Random block
Variety: See treatments
Fertilizer: All plots 4:1:6 1,200 lbs/acre
Water Regime: Dryland

Soil Analysis:

	ppm			
PH	P	K	Ca	Mg
8.1	26	49	8888	198

Age: 12 months (11/64 - 11/65)

Rainfall, this crop: 28.87"

Object: To test variety Performance on Dryland.

Treatments:
1. N:Co.310
2. N:Co.376
3. N:Co.382
4. N.50/211
5. N.51/539
6. N.51/168

Results:

Variety	Suc. %	T.P.A.	T.S.A.	1 T.P.A.M.	2 Lbs. S.A.M.	Rank	
						1	2
310	12.26	12.18	1.493	1.015	248	5	5
376	9.91	19.86	1.968	1.655	328	1	2
382	11.84	11.21	1.327	0.934	222	6	6
211	9.42	18.59	1.751	1.549	292	2	4
539	10.90	17.36	1.892	1.447	316	4	3
168	12.00	17.94	2.153	1.495	358	3	1

S.E. = ± 3.285
C.V. = 20.29 %

Treatment differences highly significant.
L.S.D. between treatments = 4.95 T.P.A. @ 5%
6.84 T.P.A. @ 1%

Conclusions:

No significant difference between varieties was observed in the 1st Ratoon once again due to the dominant influence of climate.

An average response to irrigation was 171% where mean yield of the 1st Ratoon dry land and irrigated variety trials were compared.

11th May, 1966.