

SOUTH AFRICAN SUGAR INDUSTRY

AGRONOMISTS' ASSOCIATION

SPACING OBSERVATION TRIAL.

Catalogue No: 195
Code No: A.S.5/60
This crop: Plant
Site: Mt. Edgecombe.
Altitude: 300'
Soil series: Windermere
Design: Systematic
Variety: N:Co.376, N.50/211
Fertilizer: lb/ac
 N P K
 0 0 0
 108 39 90
Water regime: Dryland

Soil Analysis:
 pH OM% Clay%
 ppm
 P K Ca Mg
Age: 17 mths (3/60-8/61)
Rainfall:

Object:

To compare three row widths.

Treatments:

S₁ = 1'6" spacing
 S₂ = 3'0" spacing
 S₃ = 4'6" spacing

Results:

Spacing	Variety	T.C.A.	No. of stalks /acre X 10 ⁻³
S ₁	N.Co.376	97.5	92.3
	N.50/211	105.0	77.0
S ₂	N:Co.376	106.4	93.9
	N.50/211	91.6	62.5
S ₃	N:Co.376	95.7	83.6
	N.50/211	89.9	59.3

Tons Sucrose per acre:

Treatment	S1	S2	S3	Mean
F ₀	15.91	15.85	12.98	14.91
F ₁	16.22	17.42	15.60	16.41
F ₂	15.73	16.02	15.88	15.88
Mean	15.95	16.43	14.82	15.74

196
4/12

C.V. % 5.3
LSD .05: Spacing 0.85 Fertilizer 2.08
1.19 3.45

1st. Ratoon

Tons Cane per acre:

Treatment	S1	S2	S3	Mean
F ₀	66.8	58.3	57.3	60.8
F ₁	85.1	65.6	58.9	70.0
F ₂	72.2	76.8	67.1	72.1
Mean	74.7	66.8	61.1	67.6

C.V. % 10.2
LSD .05: Spacing 7.10 Fertilizer 14.14
.01: 9.95 23.45

Tons Sucrose per acre:

Treatment	S1	S2	S3	Mean
F ₀	9.53	8.50	8.14	8.73
F ₁	11.71	9.16	8.15	9.68
F ₂	10.04	10.60	9.06	9.90
Mean	10.43	9.42	8.45	9.43

196
6/13

C.V. % 9.5
LSD .05: Spacing 0.92 Fertilizer 1.75
.01: 1.29 2.91

2nd Ratoon

Tons Cane per acre:

Treatment	S1	S2	S3	Mean
F ₀	68.0	55.2	65.4	62.9
F ₁	79.6	72.2	77.0	76.2
F ₂	75.0	78.6	78.8	77.5
Mean	74.2	68.7	73.7	72.2

C.V. % 8.1
LSD .05: Spacing 6.0 Fertilizer 15.9
.01: 8.4 26.4

2nd Ratoon

Tons Sucrose per acre:

Treatment	S1	S2	S3	Mean
F ₀	11.30	9.08	10.62	10.33
F ₁	12.48	11.36	12.18	12.01
F ₂	11.39	12.74	12.02	11.96
Mean	11.72	10.97	11.61	11.43

196
634

C.V. % 7.8
LSD .05: Spacing 0.92 Fertilizer 2.92
.01: 1.30 4.84